An Address
ON
DEFECTIVE SANITATION AS A CAUSE OF PUERPERAL DISEASE.

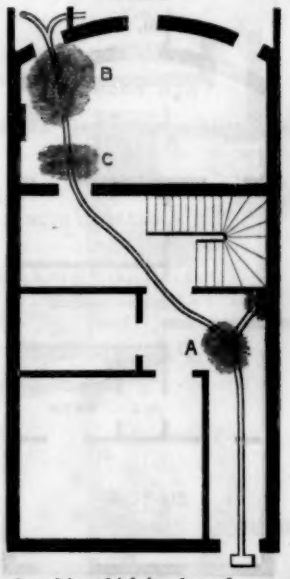
Delivered at the East London and South Essex District of the Metropolitan Counties Branch of the British Medical Association.

By W. S. PLAYFAIR, M.D., LL.D., F.R.C.P.,
PROFESSOR OF OBSTETRIC MEDICINE AT KING'S COLLEGE, AND PHYSICIAN FOR THE DISEASES OF WOMEN AND CHILDREN TO KING'S COLLEGE HOSPITAL.

GENTLEMEN,—When your Secretary, Dr. Hunt, did me the honour of suggesting that I should deliver an address at your opening meeting, the difficulty I experienced in acceding to his request was not the want of a subject, but rather the selection of one amongst the many topics connected with obstetrics and gynæcology which might be of sufficient interest to claim your attention for a short period. My first idea was to offer you a comment on some of the topics that have of late been especially discussed by gynæcologists, such as the more recent developments of abdominal surgery, particularly the removal of the uterine appendages and ovaries, which mooted point certainly calls for much more thorough discussion than it has yet received. I soon found that to enter on topics such as these in the brief period which I could occupy without unduly trespassing on your patience and courtesy involved an effort at concentration of which I was incapable. Dr. Hunt's invitation told me that a short paper of half an hour's duration or thereabouts would suffice, provided it was of a nature to elicit discussion; and I therefore resolved to direct your attention to a hardly appreciated source of septic disease to which I have myself traced many otherwise inexplicable cases of septicæmia in childbirth, and to which my attention has been more particularly drawn within the last few months from the fact that I have had the misfortune to meet with what I believe to be a well-marked instance of it in the person of the wife of an esteemed professional friend, whose terrible illness was traced to this source. I refer to the poisoning of lying-in women from sewer gas, conveyed to the house in consequence of defective sanitary arrangements. Here at least is a topic which must interest you all, for if there is one thing more than another which the practitioner has to dread it is the development of this insidious and terrible illness after delivery, defying as it so often does the most strenuous and best-directed treatment, desolating happy homes, and too often leading to most undeserved blame and injury to the medical man who has the misfortune to meet with a case in his practice. This source of puerperal disease has scarcely received any attention at all, and it is hardly alluded to in our text-books, and yet I believe it to be very far from uncommon, and I trust I may elicit from your experience some corroboration of my views on this topic. I thus speak of it in my work on Midwifery: "Exposure to sewer gas may, I feel sure, produce the disease. In two cases of the kind I had the opportunity of closely watching, an untrapped drain opened directly into the bedroom, in one instance into a bath, in the other into a watercloset. Both cases were indistinguishable from the ordinary form of the disease, and in both improvement commenced as soon as the patient was removed into another room. In a case I saw some years ago at Notting-hill, the patient, who had been confined a week, had all the symptoms of a most intense attack of septicæmia, but none of a diphtheritic character, while her husband lay in an adjoining room suffering from a diphtheritic sore-throat. Here the waste-pipe of the bath was found to communicate directly with the sewer. In spite of her intense illness I had the patient removed to another house, and from that moment she began to improve. In two other cases in which the same source of disease was detected, the removal of the patient from the infected atmosphere was immediately followed by a marked amelioration in the symptoms. I know of three similar cases which ended fatally, in which I have every reason to believe that the cause of the disease was poisoning by sewer gas. Frankenhauser has related a curious case of the poisoning of four puerperal women by sewer gas. In fact, the whole question of defective sanitary conditions on the puerperal state deserves much more serious study than it has ever yet received, and I have long been satisfied that they have often much to do with certain grave forms of illness in the lying-in state the origin of which cannot otherwise be traced."

Now this quotation, which is only to be found in the later editions of my book, contains, I believe, a summary of nearly all that is known on this important topic, and you will see how little it is. It is surely high time that it should be more thoroughly worked out and studied, and although I have no pretension to-night to do more than to direct your attention to it, I trust that the endeavour may be of some practical use. I purpose therefore to describe more particularly some few illustrative cases of the kind, and to show you by rough diagrams how the sewer gas came to be brought closely into contact with the patient. I shall select four only out of the large number of cases I have seen and noted, in which no other source of disease could be traced, and in which its dependence on this cause may, I think, be taken as proved to demonstration. As I am now dealing with causation only, I shall not describe at all the symptoms of the patients; merely saying that all these cases were typical examples of the ordinary puerperal fever or septicæmia, not differing in any marked way from the usual types of that disease.

FIG. 1.

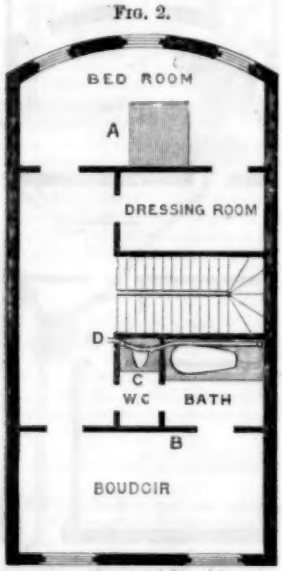


Let me first direct your attention to the case I have alluded to. I myself attended my friend's wife early in June last, and very shortly she developed a severe illness, accompanied by marked hyperpyrexia, the temperature constantly ranging over 104°, and continuing at this high level for over six weeks. It was only kept down by the use of Thornton's ice-cap and constant sponging with iced water. Two months after delivery large pyæmic abscesses formed; and I wish it could be said that even now, after the lapse of three months, convalescence was established. Now, in searching out the causes of this terrible illness the hygienic condition of the house was naturally investigated, with the results I shall show you. My friend entered his house on his marriage a year since, and believed that the sanitary arrangements had been thoroughly seen to. Unfortunately, the engineer to whom they had been entrusted had relied on the statement of the former owner that the main drain was in good

condition. Moreover, there existed the radical defect of having the closets and soil-pipe in the centre of the house, an arrangement quite incompatible with perfect sanitation. Now let me point out what was discovered. First, as to the basement (Fig. 1):—At A in the passage the new soil-pipe placed when the house was taken was joined to the old one, and at the junction there was a considerable leakage, and when uncovered the stench was intolerable. At B was found an old brick drain surrounded by sodden sewer earth, very foul. A large cartloadful was removed from the spot indicated below the floor of the kitchen. At C were two defective joints with considerable soaking through of sewage, and over these drains there was nothing but earth and kitchen boards. Dr. Dawson Williams, who conducted the investigation, very naturally says that he considered the above a very serious condition. Dr. Williams also points out that on the second floor not only was the sewer gas from the basement drawn up (Fig. 2), but the bedroom (A) where the confinements took place, the boudoir (B) where the patient chiefly lived, and the W.C. (C) "were practically in one." Besides the above, other but less important defects were found, such as a housemaid's closet, the waste-pipe of which opened directly into the soil-pipe (D).

Now, can it be reasonably doubted that this illness

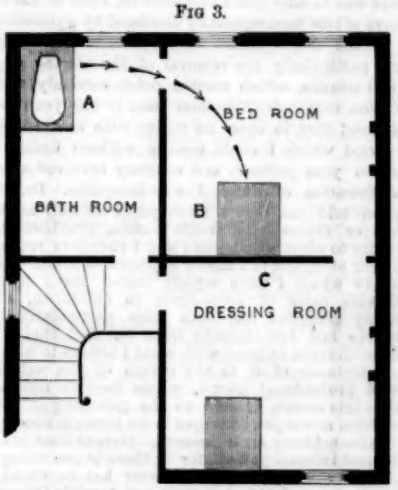
FIG. 2.



originated in this horrid state of things, since no other possible cause could be detected? Moreover, is not this a striking example of the way in which we are all placed absolutely at the mercy of workmen and plumbers? Here is the case of a member of the profession fully alive to the risks of defective sanitation, who in going into a new house spares no expense to have it properly drained, who employs a sanitary engineer for the purpose, with the results I have described above. It is a curious fact in connexion with this case, and I think it must be something more than a coincidence, that in the favourite professional street in which my friend lives I have myself seen four cases of puerperal septicæmia within the last five years, one of which proved fatal, and I have heard of three more, one of which proved fatal. Possibly there may have been more of which I am not cognisant. Now, in a street of 152 houses there can only have been a small number of confinements in five years, and if out of this small number seven were attacked with puerperal septicæmia, surely there is fair ground for suspecting that there exists some morbific cause localised in the street; for to suppose that there were seven cases of conveyed septicæmia in one street in five years is an assumption that is incredible. Now, all these houses are old, probably all were originally defective in their sanitary arrangements, and many may yet remain so. I do not wish to attach too much importance to the fact I have stated, but it is certainly striking and suspicious. I have often wondered whether in the good old days, when there was no such thing as a watercloset in existence, when foul smells were at least localised to the place of their origin, and when sewer gas was not ingeniously carried by a complex series of pipes to our very sleeping-places, true sanitation was not really better than it is now, when it is so much studied and so little practised.

Now let me show you a second example. This diagram (Fig. 3) represents the bedroom floor of a new house of considerable pretensions in Notting-hill, in which I saw a lady some years since, with her medical adviser, Mr. Hewer, in a very dangerous state from septic disease. The origin of her illness was discovered from the curious fact that her husband was lying ill at the same time in the bed in the dressing-room (C) with a severe diphtheritic sore-throat. This could hardly be a mere coincidence, and it pointed very strongly to some common cause of illness to which both had been subjected. The fact that his wife's illness showed no diphtheritic symptoms went for nothing in my judgment, for I have been long satisfied that septicæmia may be produced in lying-in women from zymotic poison—as, for example, the scarlatinal poison—without any of the specific

FIG 3.



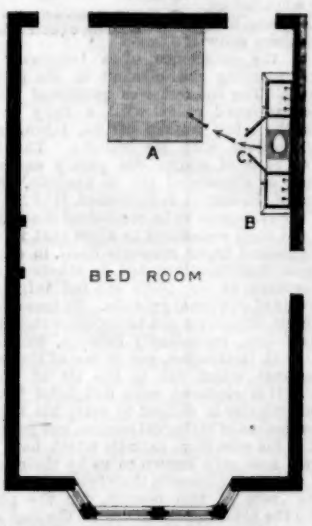
symptoms of the special poison producing it. Here the cause was not far to seek, for, amazing as it may seem, the waste-pipe of the bath (A), close to the bed (B) occupied until a few days before by both, went straight down the outside of the house to the main drain, into which it opened, so that the sewer was ventilated right into the dressing-room. As soon as this was detected, seeing that the patient must have been constantly inhaling fresh doses of poison, I had her removed, in spite of her critical condition, to her mother's house in a neighbouring street. The result most fully proved the correctness of the assumption as to the cause of her illness, for a marked change for the better at once occurred, and the patient was soon convalescent.

The next diagram (Fig. 4) represents a bedroom in a large house in the most fashionable part of the West-end, which had been recently taken and done up in the most costly way. I attended the lady of the house in her second confinement, and she lay in her bed at A. Shortly she developed well-marked septic symptoms, and I naturally investigated the sanitary state of the house to see if it threw any light on their origin. I could find nothing amiss. There was no bath or fixed washhand stand near the room, and the closets were at a distance, with the soil-pipe running down the outside wall, as it should do. It was not until some days afterwards that I discovered the extraordinary arrangement depicted in the diagram, which no one could possibly have suspected, and the knowledge of which the patient had given special directions should be withheld from me. At B is represented a very handsome and innocent-looking

piece of furniture which seemed to be a fixed wardrobe, to which purpose its ends were in fact devoted. The centre door, however, formed by a large mirror, opened on a concealed watercloset (C), which luxury no one could have looked for in such a situation. I subsequently discovered that this was a brilliant idea of her husband's, who actually had had a special soil-pipe carried through the centre of the house, which communicated directly with the main drain, with no ventilation, and who had thus contrived, at an enormous cost, to have a stream of sewer gas laid on close to his bedside. And be it remarked that builders and plumbers had carried out this ingeniously dangerous arrangement without giving him the slightest hint that it was either unusual or perilous. Of course as soon as I made this discovery I had the patient removed to another room, when her symptoms soon abated.

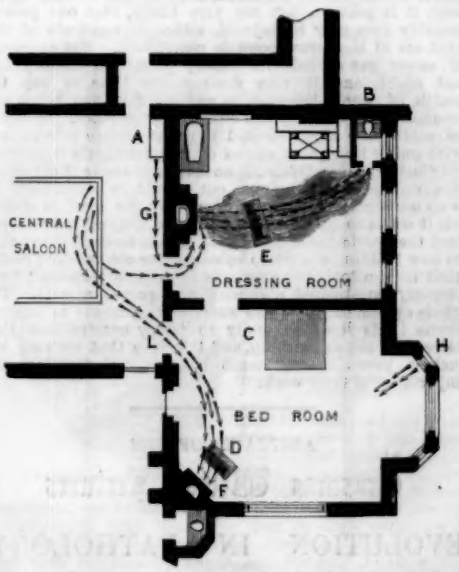
I could easily go on multiplying examples of this kind, but I shall content myself with one more case, which was thoroughly worked out, with very instructive results. It was that of a lady who was confined in the country of her first child, in a large and expensive house, newly built, and supposed to be supplied with all the most perfected sanitary arrangements. There was nothing particular about the labour, and for the first ten days the convalescence left nothing to be desired. On the eleventh day she got up and

FIG. 4.



lay on the sofa (Fig. 5, D) opposite the fire (F), which, as it was in January, was burning day and night. The day after, although she had a headache and felt poorly, she again got up and lay on the sofa. The subsequent day, although feeling very ill, she again insisted on getting up and lay on the sofa at E, in her husband's dressing-room. On the following day she was very ill indeed, with a temperature of 104° and a pulse of 130, and I was summoned to see her. It is needless to say more of her illness, which rapidly increased, except that, feeling satisfied it was caused by defective sanitation, I advised her removal to a house in the neighbourhood, in spite of the very grave symptoms that existed, with the most satisfactory result, for within twenty-four hours her temperature had fallen, and she rapidly became convalescent. Of course at this time nothing was known of what actually existed, but I was led to form this conclusion from the fact that a number of the servants and residents were suffering from sore-throats, and from being told that almost everyone who came to stay felt ill and out of sorts. Subsequently the sanitary state of the house was thoroughly investigated by one of the most distinguished sanitary engineers in London, from whose reports the accompanying diagram (Fig. 5) is copied. It is useless to enter into a description of all the abominations which were found to exist, which, in a house of the kind, in the building of which no expense was spared, were almost past belief. For the purpose of my story it will suffice to say that the smoke test showed that there was a very abundant escape of sewer gas into both the bedroom and dressing-room, which, from the fact that there were large fires burning constantly in both rooms, passed in a continuous current in the direction of the arrows. In addition, the plumbing work in the closet in the dressing-room had been so imperfectly done that its contents found their way out under the floor. Now, mark how thoroughly and curiously these facts prove the cause of the disease. The patient lay in the bed at C, which, from the accident of its being winter, and the current of sewer gas being drawn therefore to the chimneys, was quite out of its reach, and for the first ten days after her confinement, while she remained in bed, she was perfectly well. On the eleventh day, when she got up, she was placed directly in the current of sewer gas at D, and instantly got poisoned. On the twelfth and thirteenth days she was again exposed to the absorption of further and more intense poisoning; while immediately on her removal to fresh and uncontaminated air all her threatening symptoms disappeared. Remark also that there was nothing peculiar in the symptomatology, nothing different from an ordinary and rapidly progressing case of puerperal septicæmia. It seems to me that this instructive history is about as com-

FIG. 5.



plete a demonstration of the origin of puerperal disease from defective sanitation as anyone could possibly desire, and I can see no flaw in the chain of evidence.

It may probably be objected that most of these cases had been exposed for a length of time to the very influences which are supposed to have caused disease after labour, and that therefore the illness should have appeared antecedently. This is undoubtedly a fact difficult to understand, and of which I profess to offer no explanation. It is to be remembered that there are many things in connexion with puerperal fever "not dreamt of in our philosophy," and for which we are as yet quite unable to account. Doubtless future investigations will throw fresh light on this and other obscure points. It may be that delivery, and the exposure of large absorptive surfaces resulting from it, makes women susceptible to influences they previously resisted. It may be also—and I have seen many cases that lend weight to the assumption—that absorbed poisons may remain latent in the system, and only show their malefic influence after delivery. I well remember a terrible case which could not, so far as I can see, be explained except on this theory. It was that of a lady who had been residing in a hired cottage in the country, close to London, up to the time of her confinement. If I remember rightly,

she was confined before her medical man could reach her. Within twenty-four hours she was terribly ill, and was dead in a few days. The virulence of the septic influence may be judged of by the fact that one of the nurses in attendance pricked her finger, got rapid gangrenous poisoning, and had to have her arm amputated at the shoulder-joint. Is the conclusion not inevitable that the patient, who felt perfectly well on leaving the country, brought with her in some latent way the poison that developed with such deadly results? Some light is thrown on its origin by its being discovered that the cottage in which she had been living was in a most insanitary state, the details of which, however, I never learnt.

Now, of course, the question arises: If these risks are really so serious to lying-in women, as I contend they are, how are they to be avoided? Increased attention on the part of the profession may do something, but not much, for the demon plumber is abroad, and one may rest in fancied security that proper care has been taken, while the carelessness of a single workman may render all our precautions useless. The Building Act authorises the district surveyor to inspect every new building, and any fault of construction promising to be dangerous he has the power to have remedied; but in the very house the beams and floors of which he inspects, every bath and cistern may open into the sewers, and the contents of the soil-pipes may freely percolate under the floors; he may even be aware of these facts, and yet he has no power to interfere. Now, if a beam breaks or a floor gives way, it is possible, but not very likely, that one person, possibly two, may be injured, although accidents of this kind are of the rarest possible occurrence. But an escape of sewer gas spreads its deadly poison insidiously day and night, and it may destroy the lives or sap the health of whole households, and, so far from being uncommon, it is of daily and constant occurrence. Would it be asking too much—would it be an undue interference with public liberty, an excess of grandmotherly legislation—to insist that careless workmanship and errors of construction, such as I have pointed out, should be prevented? It is no use shutting the stable door when the steed is stolen, but it seems to me that it would be a simple thing to extend the provisions of the Building Act in such a way that no new building should be inhabited, or old building re-let, until its sanitary arrangements have been inspected by a properly constituted authority and passed as safe. The whole system of closet and water arrangements in modern towns lends itself so easily to faulty construction that defects are not astonishing, and I believe that nothing but such a provision will teach builders and plumbers the importance of their work.

ABSTRACTS OF THE

Erasmus Wilson Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons of England,

BY J. BLAND SUTTON, F.R.C.S.,

ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL.

LECTURE I.

SUPPRESSION OF PARTS.

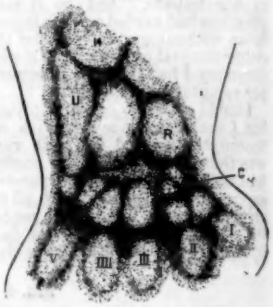
MR. PRESIDENT AND GENTLEMEN,—Last year I endeavoured to show that the three laws formulated by Professor Huxley as expressions of the principles concerned in evolution, in so far as they relate to anatomical details, are equally applicable to pathological anatomy. The first law—*There has been an excess of development of some parts in relation to others*—was abundantly illustrated under the term "hypertrophy." In the present course full attention will be devoted to the second law—*Certain parts have undergone complete or partial suppression.* A careful consideration of this law leads to important conclusions, and renders intelligible some very obscure conditions, which have excited more or less curiosity in the minds of pathologists.

The first example is merely chosen to serve as a clear instance of the process termed "suppression." Recent researches indicate, beyond all doubt, that an ossicle has been suppressed in the human carpus. In the manus of a very large number of vertebrates, beginning with tailed amphibians and passing onwards to primates, wedged in between the proximal and distal row of the carpal bones, we find an ossicle known as the "centrale." A typic carpus, taken from a baboon, is represented in Fig. 1.

FIG. 1.

Carpus of a baboon, showing the os centrale.

FIG. 2.



Carpus of a fœtus with the rudimentary centrale, c (after Leboucq).

This bone became very interesting when Henke, Reyher, Rosenberg, Kölliker, and others drew attention to the occurrence of a temporary nodule of cartilage representing this element in the carpus of the human fœtus. The interest was quickened when Gruber and Turner reported cases with a fully developed os centrale in the adult human carpus, taking rank with, and being coequal with its fellows. The illustration chosen (Fig. 2) is of course one purely anatomical, and the existence or absence of the os centrale, in so far as the function of the carpus is concerned, is of little moment. In most of the cases now to be considered the matter is very different, for I shall endeavour to show that in many cases where a suppressed organ reasserts itself, in some it gives rise to serious malformations, and in others is a source of danger, inasmuch as the parts are not infrequently the starting-points of abnormal growths. To trace the ancestral history of these structures and to decipher their meaning is, in many instances, exceedingly difficult, but the quest is surrounded with fascination, and is one of the most enjoyable occupations which fall to the lot of the scientific pathologist. It is rendered more delightful from the fact that the investigator is obliged to carry his inquiries into the remotest realms of biological science, and gather evidence in support of his case from animals which have long since passed away, now only known to us by their bony framework. All mammals possess in their brain a striking illustration of the truth of this remark, for the pineal body, imagined by the older anatomists to be the seat of the soul, has now been shown by Mr. Baldwin Spencer to be the remnant of a median eye, which still persists in a rudimentary form in lizards. It was most highly developed in extinct amphibians, being probably a functional sense organ of pretertiary periods. The fact of the pineal body originating as a tubular diverticulum from the thalamencephalon is very suggestive, and that it should be the seat of aberrant formations may be anticipated. Weigert, Virchow, Wilks, and Drs. Charlewood Turner and Silcock have described specimens of a cystic condition of the pineal body in the human subject.

One of the clearest instances of suppression, and at the same time one capable of indisputable demonstration, is connected with the disappearance and occasional reappearance of a third incisor tooth in man. The matter was first worked out and announced by Professor Albrecht (now of Hamburg) in quite a number of papers, that normally man inherits three incisors on each side in the upper maxillæ, but during development the middle (second) one of the three is suppressed. In many cases of cleft palate, however, more room is afforded, and the usually suppressed tooth attains a functional condition. The question was one of importance, and I was able in a paper read before the Odontological Society of Great Britain in December, 1884, to confirm this part of Albrecht's observation. Professor Sir W. Turner, a month later, adduced also confirmatory testimony in the

Journal of Anatomy and Physiology, vol. xix.; and the last contribution in this direction is by Windle and Humphry in the same journal. A careful analysis of the facts shows, beyond all doubt, that in the usual course of events an incisor tooth is suppressed in the upper maxilla of man; the only point admitting of any latitude of opinion is whether the missing tooth is the second or third incisor. As the case stands at present the balance of opinion is in favour of it being the second.

We must not forget, however, that supernumerary teeth are found in other situations than in the incisor series; indeed, they may occur in almost any part of the dental arch, and may vary in character from a perfectly formed enamel-covered tooth to a tiny conical mass of dentine. In determining whether an extra tooth is a supernumerary one or not, we must also take into consideration the fact that an excess in the number of teeth is occasionally due to the retention of one or more milk teeth. In order to comprehend the true significance of supernumerary teeth, it is necessary to bear in mind the morphology of these organs. In their essential features the teeth of a shark agree with those of a mammal, and in their development as calcified papillæ of the involuted epiblast in the buccal region—the stomodæum—the two forms are in perfect harmony. In the case of the shark almost the whole of the mouth is beset with teeth, whereas in mammals they are normally restricted to certain very definite tracts. An unprejudiced survey of the facts ought to convince us that though the teeth of mammals are thus kept within narrow limits, yet the papillæ in the immediate vicinity of these teeth territories are potentially teeth, and it is perfectly consonant with what we know of the principles of atavism that these papillæ should occasionally declare their ancestry by developing as rudimentary, or even perfect, teeth. Nor is this form of atavism limited to this particular region; for, inasmuch as teeth are modified papillæ of the skin or integumental covering (and this may be absolutely demonstrated in the case of the young of the dog-fish, in whom the various stages may be clearly traced from placoid scales to teeth), so in those remarkable teratomata arising in obsolete canals lined with epiblastic tissues, calcified papillæ (teeth) make their appearance. Dentine and enamel are tissues which exist in scanty proportions in man, yet they formerly occurred in great abundance in the remarkable mailed-ganoids which are encased in an elaborate armour of these very extraordinary tissues.

If we admit the above opinions, then a rational explanation is forthcoming of certain interesting pathological conditions which occur in the mouth. For instance, some forms of odontomata may be considered as aberrant involutions of buccal epiblast and papillæ; the view is supported by the fact that this variety of neoplasm occurs in many mammals. There is also good evidence to support the view that the milk dentition is to be regarded as a set of teeth appearing in obedience to the law of inheritance. In many mammals they are, like the lanugo of the human fœtus, shed before the embryo quits the uterus. If supernumerary teeth can be regarded as atavistic, then we must consider certain pre-calcific stages of teeth in the same light; for instance, in the early stage a tooth consists of an up-growing papilla capped by a down-growth of epithelium. Suppose the development to advance no further, but growth to continue, the result is an aberrant formation—a neoplasm. Involutions of this kind have been detected by Malassez, and Mr. Eve has discussed their relation in connexion with multilocular cystic tumours of the jaws. The upshot of the argument is this: supernumerary teeth, odontomata (excluding the cementomata of herbivora), and multilocular cystic tumours of the jaws may be regarded as originating in the germs of teeth suppressed in the process of evolution of our species. The incisor tooth, to the consideration of which the early part of the argument was dedicated, may be considered, in all probability, as the last tooth in the order of suppression.

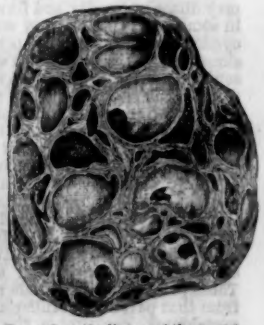
In addition to neoplasms originating in undeveloped enamel germs, we have to take into consideration a class of tumour usually described somewhat vaguely as adenomata, growing from the palate. Our knowledge of these cases is much advanced by the work of Mr. Stephen Paget on this subject. It appears that neoplasms, perfectly innocent in their nature, but full of epithelial nests, occur in the palate, and there are good grounds for believing that many of the growths variously described as glandular, alveolar sarcoma, alveolar carcinoma (!) &c., have their origin in little rounded masses of epiblast, which become enclosed between the two horizontal plates, which fuse together in the median line in order to separate the nasal and buccal cavities. The existence of such isolated epithelial islets has been affirmed by more than one observer, and a good account of them, with references to the literature of the subject, will be found in Lebaucq's papers on "Le Canal Naso-palatine chez l'Homme," and Note sur les Perles Epithéliales de la Voûte Palatine."[1]

In the museum of the Middlesex Hospital, standing side by side in the section devoted to injuries and diseases of the kidney, are two specimens; each in the words of the catalogue is thus described:—"A kidney, which is enlarged to three times its natural size, and is almost entirely made up of a congeries of cysts, varying in size from a walnut to a pin's head, separated from one another by a narrow band of renal tissue. The pelvis and ureter were not dilated. The normal shape of the organ is retained, but no distinction is visible between the cortex and medulla." The kidney, I have since been able to determine, was removed from a fœtus at term, and its general appearance may be gathered from Fig. 3. Few can have conducted many pathological examinations of fœtuses without encountering such a case. I have examined ten such kidneys. A goodly number are recorded in the Transactions of the Pathological Society, and many of the pathological collections in London possess examples of the condition. This cystic state is not confined to human kidneys, for I have studied them in calves, sheep, asses, and horses. Such kidneys are usually found in still-

FIG. 3.

A congenital cystic kidney.

FIG. 4.



General cystic disease of the testicle. Innocent form.

born fœtuses, and often coexist with such malformations as cleft-palate, hare-lip, talipes, hydrocephalus, &c.; but they may occur without associated malformations, and in a milder form are not incompatible with life. The first to draw attention to this remarkable condition was Virchow,[2] although cases had been reported by Rayer and Förster. Virchow considered the cysts to arise by ectasia of the uriniferous tubules, in consequence of obstruction to the tubules, the result of disease during intra-uterine life; in the majority of specimens the pelvis of the kidney is absent. The cysts contain fluid which numbers among its constituents urates. The ureter is excessively thin, but always pervious, and the renal artery excessively attentuated. Often the kidneys are of the horseshoe pattern. In rare cases a tract or a few patches of normal renal tissue is present. The researches of my friend, Mr. S. G. Shattock, put the matter on a totally different footing. By great good fortune a fœtal kidney in a less advanced stage and with a perfect pelvis came under his observation, and microscopic examination showed that the walls of the cysts were lined with tessellated epithelium. Comparison of sections from this kidney were carefully made with sections of the mesonephros (Wolffian body) of a human fœtus, and their identity established. Whilst Mr. Shattock was working in this way, I adopted an independent method, and compared sections of congenital cystic kidneys with

[1] Archives des Biologie, vol. ii., 1881.

[2] Ueber Congenitale Nierenwassersucht, Gesammelte Abhandlungen, pp. 839, 884. Consult also Pye-Smith, Trans. Path. Soc., vol. xxxii., p. 112.

specimens prepared from an abnormally large paroophoron in a fœtus, beside numerous smaller ones. The conclusion derived from the study was irresistible—viz., that in these enormous cystic kidneys, whether they occur in the fœtus or adult, are to be regarded as persistent mesonephritic (Wolffian) tubules which have become cystic (retention cysts). The amount of mesonephritic tissue varies in different cases, and in most a certain proportion of metanephritic tissue is present. Mr. Shattock's observations on congenital cystic kidneys are not only directly confirmed by what we know of mesonephritic remains composing the paroophoron, and the great tendency they exhibit to form cysts, but they shed much light on the innocent variety of cystic disease of the testis. In this case the cystic spaces are lined with tessellated epithelium, and arise from the dilatation of the collection of mesonephritic remains familiar as the organ of Giraldès, situated between the testis and the epididymis. The general appearance of this affection recalls that of the congenital cystic kidney. (Fig. 4). Thus developmentally, structurally, and in pathological tendency, congenital cystic kidney, the innocent form of cystic testicle, and paroophoron cysts are identical.

Among suppressed organs of pathological import must be mentioned the pedicle of the allantois—familiar as the urachus. Although normally persistent as a shrunken, impervious cord, passing from the summit of the bladder to the umbilicus, it may occasionally retain its patency for a long period after birth. In some instances it may grow equally with the bladder, retain a communication with that viscus, and give rise to a so-called bifid bladder. It may dilate unequally and form a chaplet of small cysts, and in some rare instances may serve as the starting-points of a cystic tumour (outside the peritoneum) of enormous dimensions. In one case I had an opportunity of examining and reporting upon with Dr. Aveling for the Gynæcological Society, the tumour weighed nearly five pounds. A careful account of some examples of this kind of cyst has been furnished by Mr. Lawson Tait in the *Gynæcological Journal*, vol. ii., in a remarkable paper on "Extra-peritoneal Cysts."

Among the most extraordinary instances of suppression of parts, with retention of an original function, known to me, is exhibited by the prostate. Morphologically, this organ, with its utriculus, glands, and muscle fibre, is to be regarded as a diminutive uterus. Careful analysis of its mode of development shows very conclusively that it is the homologue of the uterine cervix and upper segment of the vagina. These portions of the female reproductive organs are formed from that part of the Müllerian ducts which, in the oviparous vertebrates, constitutes the shell-forming segment. All surgeons and pathologists must be familiar with the small concretions so constant in the recesses of this organ in adults, and which have been so well described by Sir Henry Thompson in the Medico-Chirurgical Transactions (vol. xl., p. 78, 1857). In constitution and composition they agree with egg-shell, and they are formed in parts strictly homologous in reptiles, birds, and mammals. Thus man has in his prostate, morphologically, structurally, and functionally, an unimpeachable witness testifying to an ancestry with the feathered tribe, low down among the oviparous reptiles.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The annual meeting of this Association was held on the 28th ult. The report of the committee showed continuous prosperity, with a steady increase of funds. The following resolution was passed:—"That the Manchester Medico-Ethical Association expresses its approval of the action taken by the Apothecaries' Society of London, to obtain admission to the Conjoint Examining Board for England, together with the Royal Colleges of Physicians and Surgeons of London." The following gentlemen were elected office-bearers and members of committee for the year:—President: Dr. H. Simpson. Vice-Presidents: Drs. H. Ashby, W. H. Barlow, S. Buckley, and F. M. Pierce. Treasurer: Dr. D. Lloyd Roberts, F.R.S. Ed. Secretaries: Mr. J. Broadbent and Dr. A. Wahltuch. Committtee: Drs. F. H. Collins, A. Emrys-Jones, S. H. Owen, T. C. Railton, W. J. Sinclair, and W. Walter, and Messrs. H. A. G. Brooke, J. C. Clarke, J. Hewett, J. Foster, H. P. Ilderton, and G. H. Pinder.

THE Bournemouth Improvement Commissioners contemplate spending £9000 in a scheme for supplying the town with sea water for street-washing and sewer-flushing. The gas and water company have objected, and it is necessary that their consent to the scheme be obtained.

ABSTRACT OF THE

Lettsomian Lectures

ON SOME OF THE

MENTAL AFFECTIONS OF CHILDHOOD AND YOUTH.

Delivered before the Medical Society of London, January, 1887,

BY J. LANGDON DOWN, M.D. LOND., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE III.

Infantile Insanity.—Infantile mania is not of frequent occurrence, and has not been the subject of much comment. Dr. Down has observed recurrent attacks of acute mania in young children. Cases having well-marked delusions of suspicion have also been met with. The ordinary trustfulness of childhood has been replaced by painful mistrust. The lecturer had seen some cases of melancholia associated with manifest delusions, one boy believing that he resembled an animal. In one case of homicidal mania in a little girl who subsequently became epileptic Dr. Down thought that the maniacal paroxysm was really masked epilepsy. As puberty approaches attacks of mental aberration assume a special character; there is frequently unnatural introspection, and a critical hyper-conscientiousness becomes prominent. Sometimes such patients avoid making any positive assertion lest the exact truth should not be spoken. These cases cause great anxiety at the time, and occasionally end in a permanent break-down. Many, however, by careful management may be tided over the climacteric period of puberty, and then all may go well. It is important to be on guard against concealed suicidal impulse and to note its slightest indication, as the tendency in such cases is to melancholia, and in some cases to self-inflicted injury. Care should be taken that there is no sexual deviation. If present it should be treated as a physical evil, and to be corrected for the good of the body. Sexual deviations are readily recognised by the supra-orbital headache, dilated pupils, brown umber areolæ surrounding the eyes, averted look, and statuesque bearing. Occasionally the latter is so marked as to resemble a minor cataleptic state.

Moral insanity is met with in childhood and youth. Such are cases of purposeless theft, lying, or mischievousness. The subjects of this condition are sometimes intellectually bright, and have an amount of address which makes them extremely troublesome to their friends. More frequently moral insanity is associated in childhood and youth with some amount of mental backwardness. The backwardness may be very slight, but the manifestations of moral insanity may be multiform. A dangerous form of moral insanity is incendiarism. Many forms of low cunning are developed in backward boys by associating them with others of more wit. Under such circumstances the backward boy calls to his aid lying, theft, and deceit to compensate for his intellectual weakness. The moral sense in these cases may be regained or developed when removed from their injurious surroundings and submitted to appropriate training. Idiot *savants* are feeble-minded children who exhibit some faculties developed to excess. Some such could carve and draw with great skill. Extraordinary memory is often met with associated with very great defect of reasoning. One boy, in reading Gibbon's "Rise and Fall of the Roman Empire," skipped a line on the third page at his first perusal. Ever after, when reciting from memory the stately periods of Gibbon, he would, on coming to the third page, skip the line and retrace his steps just as when he first re-committed the passage to memory. Often the memory takes the form of remembering dates and past events. One boy never failed to tell correctly the name and address of every confectioner's shop he had visited in London, and could as readily tell the date of every visit. The faculty of number is usually slightly developed in feeble-minded children, while memory is fairly well developed; yet occasionally the power of mental arithmetic has been well developed. Improvisation is an occasional

faculty. Memory of tune is a very common faculty among the feeble-minded; they readily acquire simple airs and rarely forget them. In none of the cases of idiot *savant* had there been any history of the possession of a similar faculty by the parents or sisters or brothers. In one case a necropsy had been made. The boy had a remarkable, indeed perfect, appreciation of past or passing time. There was no difference from an ordinary brain, with the exception that there were two well-marked and distinct soft commissures. Dr. Down's explanation of the phenomenon was that, as every movement of the house was absolutely punctual, he had data from which he could estimate the time by accurate appreciation of its flux. All these cases of idiots were males. Every form of mental deviation may be met with in the congenital feeble-minded. They may become the subjects of acute and chronic mania, of acute and chronic melancholia, and of dementia. Occasionally under the influence of acute mania, the feeble intellect of the youth becomes fanned into a brighter flame. The taciturn may become loquacious; the timid and respectful, proud and defiant; the amiable and tractable, abusive and destructive. Three remarkable instances have occurred to Dr. Down of boys who had never been able to speak making use of well-formed sentences during the high febrile state of acute pneumonia or scarlatina. There are two ailments from which the congenital feeble-minded are remarkably free—chorea and hysteria. Chronic and persistent incoördinate movements may be seen, but not the acute attacks so common in a general hospital. Perhaps it is partly owing to the lessened emotional life of the patients. The same reason may account for the rare occurrence of hysteria. This defective emotional element in the feeble-minded spares them much grief. Epilepsy is a common complication of feeble-mindedness. Of the whole number of Dr. Down's patients 24 per cent. have been at some period or other epileptic. Dr. Kerlin of Pennsylvania gives nearly the same percentage. Epilepsy often appears for the first time at puberty, and subsequently disappears. Occasionally the status epilepticus supervenes with the worst possible results. Catalepsy is met with among the feeble-minded, but always associated with impure habits.

The *physical deviations* of the feeble mind are important. They are very prone to eczematous eruptions in the flexures of the joints and behind the ears. The skin gives evidence of degeneration in its tendency to unnatural unions, just as the petals of the corolliflloral exogen indicate a lower grade than the distinct petals of the thalamiflloral. So do webbing of the toes and fingers and adhesions of the lobules of the ears suggest marked inferiority. Abnormalities of the ear were frequent in people of a degenerate type: lobules absent, lobules adherent, helices defective, and the entire pinnæ misshapen or shrunken, are very common. The development of the hair offers some anomalies; some of the feeble-minded are hirsute over the whole body, and 11 per cent. have the eyebrows continuous over the nose. The tongue is very badly coördinated; at the usual time for commencing to speak, 36 per cent. were found to be speechless, and 30 per cent. could speak but little, whilst not more than 28 per cent. could speak fluently. Mastication is often defective; deglutition is often hurried. Rumination occasionally occurs. The appetite may be perverted, pebbles and other things being swallowed without ill effect. The organs of reproduction are ill developed—small ovaries and undeveloped or undescended testes. The reflex functions are defective. Constipation is common. Emesis difficult to excite. Absence of cough and expectoration when the subjects of phthisis was also to be explained in the same way. The vaso-motor system is very sensitive. Sudden change of weather easily excites gastro-intestinal trouble. Bolting food, or over-eating, or taking too much meat, or electrical disturbances are other common causes of catarrh of the bowels. Disseminated sclerosis, shown in the characteristic gait and scanning speech, may be observed; but more frequently pseudo-hypertrophic paralysis is manifested in the feeble-minded. Diseases of the liver and kidneys are extremely rare, owing to the discreet and temperate habits which such patients are accustomed to lead under medical guidance. Rheumatism is very exceptional. Diseases of brain and lungs are the chief causes of death, putting aside the diseases of childhood. Dr. Fletcher Beach found that about 2½ per cent. of the average daily number of inmates of the schools at Darenth die from epilepsy, or more than the mortality of London from all causes. The prevalence of phthisis as a cause of death depends very much on the nature of the soil on which they reside. In the year 1867 Dr. Down wrote a paper in THE LANCET "On the Relation of Idiocy to Tuberculosis," in which he showed how prevalent phthisis was among idiots, amounting to 39 per cent. of the general mortality. Nothing is more remarkable than the readiness with which feeble-minded children succumb to acute disease of any kind, or the way in which they are affected by climatic changes. The onset of illness should be narrowly looked for and promptly treated. The thermometer is of great value in detecting the early signs of disease and the need for early precautionary measures. Loss of appetite was the indication most relied on of illness before the introduction of the clinical thermometer. As to height and weight of idiots, Dr. Down's observations agreed with those of Dr. Shuttleworth and Dr. Tarbell of America. They are shorter and lighter, but the relative rate of growth of the two sexes of idiot children follows the same rule as that of normal children, and is subject to the same variations at puberty.

Diagnosis.—The diagnosis is important both for training and forensically. The profound cases are easily diagnosed, especially if associated with marked asymmetry of cranium or microcephalism. The congenital class is that which has to be considered in early life. The instinctive process of feeding is often acquired with difficulty, and indicates that there is no predominance of instinct in infancy. The young animal is on a higher platform than an idiot baby so far as instinct is concerned. There is a marked indisposition to make muscular effort. There is no responsive leap when the feet are allowed to touch the ground. No disposition to crawl. The power of standing is long deferred, and walking may never be attained. There may be much difficulty in diagnosing the accidental cases. They are, as a rule, fleet and mobile and mischievous to a degree. Irritated by constraint and intolerant of cephalic examination, they alternate their mischievous pranks with shrill shrieks and unmeaning cries. They rarely speak, are fond of feeling things with their tongue, and run about in search of fresh objects for indulging this freak. They live entirely in a world of their own. Slavering is a very common sign among the members of the three classes, arising sometimes from inattention, or from the hyperæmic condition of the salivary glands, from prognathous form and inadequate size of jaw, from want of muscular power of lip, from incoördinate movements of the tongue, and sometimes from a combination of two or more of these conditions. Automatic movements are also common. These may consist of rotatory movements of the head on its axis, from side to side, and rhythmical movements of the fingers before the eyes.

Backwardness.—There are a large number of boys and girls who are dull and backward, who develop tardily, but do eventually attain to a fair amount of intellectual power. These are the *enfants arriéres* of French writers. For diagnosis the question to be answered is, Can we in imagination put back the age two or more years, and arrive thus at a time perfectly consistent with the mental condition of our patient? This would be possible with a backward but not with an idiotic child.

Absence of speech may be ascribed to deafness or congenital defect of hearing; to defective formation of the tongue, palate, or lips; to defective mental power, the child having no idea, or being incapable of converting ideas into words.

Anatomy.—The weight of the brain may be very considerably diminished in the microcephalic or Aztec types. The brain is not always simply retarded in growth. Too early synostosis could not be the cause of microcephalism. There is defect of development as well as of growth. The development of convolutions was not arrested equally at all parts of the brain. In one case—the brother of the patient whose brain was described by Mr. Marshall—the occipital lobe had developed but slightly. The convolutions were less complex, smoother, and with fewer secondary sulci than those of the orang or chimpanzee. The supra-marginal lobule, and the second connecting convolution were almost absent. The first convolution was very simple. There was a calcarine lobule, but not any accessory fold uniting the second ascending fold to the supra-marginal lobule. In these features the brain resembled the quadrumanous cerebrum. The want of symmetry, of an operculum, of the two internal connecting convolutions; the position of the bent fold in regard to the fissure of Sylvius; the complete junction of the calloso-marginal and the middle temporal or uncinate convolution—were characters

essentially human. Asymmetry of the brain is common. The occipital lobe is often undeveloped. Hypertrophy of the brain is not unfrequent. A huge cranium with completely ossified sutures may coexist with a hypertrophied brain. The cranium may be greatly thickened. More or less complete absence of commissures may be met with. The corpus callosum has been absent in 2 per cent., and the soft commissure in 8 per cent., of Dr. Down's post-mortem examinations. Pallor of the grey matter is of very frequent occurrence. Indeed, nothing is more striking than the frequent mention of whiteness of this part. Dr. Down could not but think that this phenomenon afforded indications for treatment and hopeful prognosis—as to the possibility of functional improvement of the brain.

Treatment resolves itself into physical and medical, and moral and intellectual training. Treatment should be begun betimes. Early training is of importance in preventing the growth of bad habits. Dr. Down avers that he knows nothing of cataclysmal improvements at seven and fourteen years of age. These ages are developmental crises full of danger. The most successful training is effected by placing the child with its peers, and not with its superiors. Intelligent children will not take part in the amusements and games of feeble-minded ones. It is important to rescue the feeble one from a *solitary* life, to give him companionship with his equals, and to place him in a condition where all the machinery moves for his benefit, where he is surrounded by influences of art and nature calculated to make life joyous, to arouse his observation, and to quicken his power of thought. In the families of the wealthy feeble-minded children do not receive the needful education and the necessary attention. It must always be kept in mind that the basis of all treatment should be *medical* in the large sense of the word. Success can only be attained by keeping the patient in the highest possible health. This is demonstrated by the increased intellectual torpor that accompanies deterioration of bodily health, and also by the diminished intellectual vigour observed in cold weather. A very liberal dietary is of great importance. It should contain a fair quantity of nitrogenous elements, and be rich also in phosphates and oleaginous constituents. Green vegetables are very essential as a valuable antiscorbutic. Too much farinaceous food should be avoided. Semolina, entire wheat flour, or macaroni are the best. The food must be easy to masticate. The bed- and sitting-rooms should be spacious, well warmed, and ventilated. The skin should be frequently sponged; the exhalation from it in the feeble-minded is something *sui generis*. A gravel soil, with well-made walks and plenty of out-door exercise and warm clothing, are most necessary. Summer brings with it a remarkable immunity from disease. Gymnastics, massage, and galvanism are employed to improve the condition of the muscles. Volitional movements should take the place of automatic ones. Simple ones are first practised. Finger lessons should precede tongue lessons. Dr. Down always remembers the pinioned Frenchman who entreated that his arms might be freed because he wanted to speak. The physical quality of the brain and other nervous centres must be improved, and this will bring the patient into practical relation with the external world and initiate reasoning. The *moral* training is of great importance. The patient's will must be brought into subjection to that of another. He has to learn obedience, that right-doing brings pleasure, and wrong-doing deprivation of pleasure. The affective faculties should be so cultivated that loss of the teacher's love should be felt as the greatest punishment, and *vice versâ*. In this way indications of untruthfulness, selfishness, obstinacy, sensuality, theft, and unkindness are checked. Corporal punishment should be strictly forbidden. Nothing is worse than deprivation of food as a punishment for an offence. Moral delinquency may be the result of mental excitement, the outcome of defective nutrition. The *intellectual* training must be based on a cultivation of the senses. They should be taught the qualities of form and the relation of objects by the sense of touch; the colour, size, shape, and relation by sight; the understanding of the various sounds; the qualities of objects presented to taste or smell. The concrete, not the abstract, should be taught. Dressing and undressing should be taught. Habits of order and neatness, of dexterity in the use of the knife, spoon, or fork, of precision in walking and handling, should be inculcated. Defective speech is best overcome by a well-arranged plan of tongue gymnastics, followed by a cultivation of the purely imitative powers. Monosyllabic sounds having concrete representatives should be first taught. The transactions of buying and selling may be easily arranged for amongst the patients themselves. House and school instruction should be supplemented by gardening and farming operations. The lathe, the fretwork machine, carpenter's bench, and printer's shop are useful appliances and means. For girls kindergarten occupations and the various elegancies of needlework may be the outcome of persevering effort. Music and dancing may, for all, alternate with dramatic entertainments, which appeal to eye and ear.

A CASE OF WOUND OF THE COMMON FEMORAL VEIN; SECONDARY HÆMORRHAGE FROM THE COMMON FEMORAL ARTERY; SEPTICÆMIA; DEATH.[1]

BY A. PEARCE GOULD, M.S.,
ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL.

THE wound of a vein is, as a rule, less serious and more easily dealt with than a wound of the corresponding artery, and for this among other reasons wounds of veins have received but scant notice at the hands of most surgical writers. Wounds of very large veins, however, are very grave injuries, and there are several interesting questions connected with their treatment which may be considered as still open to discussion. Having recently had to treat a case of wound of the common femoral vein attended with grave complications, I have thought an account of it might be considered worthy of attention.

On the evening of Oct. 11th, 1886, M. M——, an Italian ice-cream seller, was stooping down in the street, when on rising he came in contact with the knife of a cat's-meat woman who was standing by his side, the knife entering his left groin. Blood flowed very freely, and he went to a neighbouring chemist, who applied a pad and bandage and sent him to Middlesex Hospital. On his arrival at the hospital the hæmorrhage had ceased, but while the house-surgeon (Mr. Livermore) was preparing to readjust the pad the man vomited, and at once a full stream of venous blood spurted from the wound. A compress was firmly bandaged on and I was sent for.

I found the man pale, cold, and rather faint from loss of blood, and as the hæmorrhage had been so abundant I determined to secure the wounded vessel. An anæsthetic was administered by Mr. Fardon, and a Petit's tourniquet was applied to the thigh *below* the wound. The wound was a clean cut half an inch long, immediately below and parallel to Poupart's ligament and exactly over the common femoral artery; a probe passed into it slipped downwards and inwards. There was no alteration in the femoral or tibial pulse. I enlarged the wound by a vertical incision about three inches long, and turned out a considerable quantity of clotted blood which was lying beneath the fascia lata; upon this very free venous hæmorrhage ensued, which was with difficulty held in check by digital pressure above the wound. I then passed my finger into the bottom of the wound, and found that it passed quite into the common femoral vein through a wound which severed the whole anterior segment of the vessel. A ligature was passed around the vein above and below the wound and tied. This did not arrest the bleeding, which was then seen to come from the internal saphena vein, which entered the femoral just opposite the wound; a ligature was passed around this vein and tied. But blood still welled up from the wounded vessel, and a further search showed that another vein entered the femoral trunk just opposite the wound in the segment between the two ligatures. This vein was tied, and then all hæmorrhage was found to be arrested. The ligatures were of carbolised silk. The femoral vein was divided between the two ligatures. The man lost a good deal of blood during the operation, which was attended with considerable difficulty owing to the impossibility of completely arresting the hæmorrhage by pressure above and below. The femoral artery was clearly seen during the operation, but was apparently uninjured. The wound was very thoroughly irrigated with solution of

[1] A paper read at a recent meeting of the Medical Society of London.

CASES OF WOUND OF THE FEMORAL VEIN.

Surgeon.	Reference.	Injury.	Treatment.	Result.
Langenbeck	Langenbeck's *Archiv*, i., 1	Wound of femoral vein during removal of sarcoma of groin	Ligature of femoral artery	Recovery
Oettingen	"International Encyclop. of Surgery," vol. iii. (Dr. Lidell's article)	Wound of femoral vein during removal of tumour of groin	Double ligature of vein; ligature of femoral artery	Recovery
McClellan	Ditto	Wound of the internal saphena vein at the entrance to the femoral vein, during excision of tumour in the groin	Lateral ligature of the femoral vein	Recovery
Roux	*Gazette des Hôpitaux*, 1853 (quoted by Nicaise)	Wound of femoral vein above saphena during removal of tumour in the groin	Double ligature of the femoral vein	Recovery
McClellan	Dr. Lidell, *op. cit.*	Wound of femoral vein and exposure of the femoral artery by a blunt hook	Ligature of femoral artery; compression of wounded vein	Gangrene of leg; amputation; recovery
Ollier	Quoted by Nicaise	Wound of femoral vein in groin	Suture of skin wound; light compression	Recovery
Delore	Ditto	Wound of femoral vein	Compression above the wound	Death from hæmorrhage
Roux	Ditto	Compound fracture of the middle third of the femur; wound of the femoral vein	Wound enlarged; hæmorrhage arrested by plugging	Recovery
Larrey	Quoted by Nicaise (*Clin. Chir.*, t. iii.)	Sabre-wound of groin dividing saphena vein at the entrance to the femoral vein	Ligature of femoral and saphena veins	Recovery
Garretson	"Medical and Surgical History of the War of the Rebellion," second Surgical volume	Wound of femoral vein	Double ligature of femoral vein; single ligature of femoral artery	Death
Leale	Ditto	Gunshot-wound of femoral vein and prostate	Compresses	Death on the 13th day
Pogue	Ditto	Gunshot-wound of femoral vein	—	Death on the 17th day
—	Ditto	Gunshot-wound of femoral vein	—	Death on the 18th day
—	Ditto	Wound of femoral vein	—	Death
—	Dr. Lidell, *op. cit.*	Wound of femoral vein and crural nerve	Compresses and styptics	Death
Agnew	Quoted by Lidell	Wound of femoral vein during ligature of artery for aneurysm	Ligature of artery	Recovery
Travers	"Surgical Essays," by Cooper and Travers	Wound of femoral vein during ligature of artery for aneurysm	—	—
Gensoul	Quoted by Nicaise	Gunshot-wound of middle of thigh, fracturing femur; secondary hæmorrhage from femoral vein	Ligature of common femoral artery	Death on the 7th day; no gangrene
Desprès	Quoted by Nicaise (*Soc. de Chir.*, Oct. 18th, 1871)	Wound of upper part of thigh; secondary hæmorrhage	Ligature of femoral vein	Recovery
Nelson	"Medical and Surgical History of the War of the Rebellion," Part 3rd	Gunshot-wound of groin; sloughing; pyæmia; secondary hæmorrhage from a wound of femoral vein by a needle	Ligature of femoral artery	Death
—	"International Encyclop. of Surgery" (Dr. Lidell), vol. iii.	Wound of femoral artery and vein	—	Death in a few moments
—	Ditto	Wound of femoral artery and vein	—	Death in a few moments
Rose	Ditto	Punctured wound of femoral artery and vein	Double ligature of femoral artery and vein	Recovery
—	Dr. Lidell's article, *op. cit.*	Gunshot-wound of femoral artery and vein	Ligature of femoral artery and vein	Gangrene; death
Dougherty	"Medical and Surgical History of the War of the Rebellion," second Surgical volume	Gunshot-wound of femoral artery and vein	Double ligature of femoral artery and vein; amputation	Death
—	Ditto	Wound of femoral artery and vein	Amputation	Pyæmia; death
—	Ditto	Wound of femoral artery and vein	Amputation on ninth day	Death
Thomson	Ditto	Wound of thigh; secondary hæmorrhage	Ligature of femoral artery and vein	Gangrene; death
Thomson	Ditto	Wound of femoral artery and vein	Double ligature of femoral artery and vein	Death
Gayet	Quoted by Nicaise	Wound of femoral vein and profunda artery	Lig. of external iliac artery	Death

bichloride of mercury (1 in 2000), and was closed with catgut sutures, a drainage-tube being inserted at the lower angle, and dressed with sal alembroth wool. A flannel bandage was rolled around the limbs, and the man was returned to bed with the knee slightly flexed. A quarter of a grain of morphia was given hypodermically.

Oct. 12th.—Next morning he appeared comfortable; pulse 96; temperature 98·4°; sweating freely. The leg and foot were nearly as warm as the other side, and there was no œdema. The temperature rose in the evening to 101·2°; and the urine was drawn off by catheter, as none had been passed.

13th.—Temperature 103·6°; pulse 100; profuse sweating; patient restless at times. One grain of opium was ordered every six hours. The wound was dressed; there was no redness of the edges, swelling, or bagging. The drainage-tube was removed. At 9 P.M. the temperature was 104°, and, as the bowels had not acted, an ounce and a half of compound senna mixture was given.

14th.—Temperature 101°. Bowels acted five times during the night, and this diarrhœa continued through the day, in spite of the opium which was taken. There was slight œdema of the left foot and lower part of the leg.

15th.—Temperature 101°; pulse 108. Diarrhœa has ceased. The wound was dressed, and a considerable quantity of turbid serum oozed from it. The highest two stitches were removed, the edges separated, and the cavity was well washed out with corrosive sublimate solution (1 in 2000).

16th.—Temperature 100°; pulse 96; no sweating. On removing the dressing the edges were found sloughy, so the remaining stitches were removed, the edges separated, and the part well irrigated with corrosive sublimate.

17th.—Delirium set in; at 12 noon he had a fit, being seized with tremors and cough, followed by dyspnœa, the patient with wide-open mouth gasping for breath for four or five minutes. The wound was dressed and well irrigated. One-sixth of a grain of morphia was injected, but he slept only a very short time after it, and at night a mixture containing half a drachm of bromide of potassium, one scruple of chloral hydrate, and fifteen minims of tincture of hyoscyamus was ordered to be given every hour until sleep was obtained. The delirium was closely like delirium tremens. Four doses of this mixture produced no effect, and the man had a very restless night. At 4 A.M. one-sixth of a grain of morphia was again injected under the skin.

18th.—The patient has had two hours' sleep, and is much more sensible. The wound looks healthier. During the day he had three injections of one-sixth of a grain of morphia.

19th.—He had had a fairly good night and was better; the edges of the wound were granulating. He was quiet all through the day, and took nourishment well.

20th.—The improvement continued; in the evening he passed urine voluntarily for the first time.

At 12.30 A.M. on the morning of Oct. 21st, after a violent fit of coughing, profuse hæmorrhage came on, and a good deal of blood was lost before aid arrived. The artery was controlled above Poupart's ligament, and Mr. Livermore seized the bleeding point with pressure-forceps. I was sent for, and had the patient placed under the influence of chloroform. I found that the bleeding came from the common femoral artery; without difficulty I placed a silk ligature upon the vessel close below Poupart's ligament. The vessel was softened, and obviously unfit for a ligature as far down as the origin of the profunda, so a ligature was placed around both the superficial and the deep femoral arteries; this entirely arrested the hæmorrhage. The wound was again irrigated with the mercury solution, and dressed as before with alembroth wool. The limb was wrapped in a thick layer of cotton-wool, and hot bottles were placed in the bed.

The patient never recovered from the effects of the loss of blood, and he died in the evening of Oct. 22nd. During the last five days of his life the foot and leg became more œdematous, and especially was this so after the second operation. The foot and leg did not regain their warmth after the ligature of the artery.

The necropsy was made nineteen hours after death by Mr. Roger Williams. Rigor mortis was present, and the body was jaundiced in appearance. The two ends of the femoral artery were separated by about two inches, each secured by a ligature; in the upper end was found a rather firm reddish clot, which extended up to and obliterated the origin of the deep epigastric artery; the distal end was filled by a much smaller and softer clot, about three inches long. The tied end of the profunda femoris artery was found between the ends of the femoral artery. The upper end of the femoral vein was found with its ligature lying loose by it; there was no ligature over or near the distal end. A ligature was found around the internal saphena vein, and another around the external circumflex vein. The profunda vein entered the lower end of the femoral vein. There was a broken-down clot filling the external iliac vein from the entrance of the circumflex iliac vein and extending almost up to the vena cava. The left lower limb was deeply congested, and swollen from œdema and gas generated by decomposition. Liver and kidneys fatty. The spleen weighed 14½ oz., and was deeply congested. The endocardium on the right side of the heart was stained red.

Remarks.—I would submit the following interpretation of this case:—The wound of the vein was made with an infected knife. Antiseptic irrigation failed to remove all the infective material, which, remaining behind, set up inflammation in the wound and led to the breaking down of the thrombus in the vein. The femoral artery may have been bruised at the time of the original injury, although it showed no signs of it at the time, and the treatment pursued—plugging the wound, &c.—may have injured it, and so its walls quickly yielded to the septic processes in the wound, and secondary hæmorrhage ensued, necessitating ligature of arteries. Meanwhile the septic thrombus had been spreading up the iliac vein until all the direct channels for the venous blood returning from the lower limb were blocked, and with this moist gangrene occurred, its full development being prevented by the death of the patient from general blood-poisoning, accelerated by loss of blood.

The consideration of this case naturally divides itself into two heads—the occurrence of the septicæmia and the proper treatment of a wound of the common femoral vein.

1. *The septicæmia.*—Of the fact of septic infection of the wound, with the formation of a spreading, softening thrombus in the iliac vein, there can be no doubt; but exactly to determine how this infection was occasioned is a more difficult matter. My own impression is that the cat's-meat knife was the carrier of the infection, and that my antiseptic irrigation, although carried out with a special view to this contingency, failed to remove all the infective material. All the usual precautions in wound treatment were adopted: the ligatures were of silk, which had been boiled in carbolic acid solution (5 per cent.), and kept in the same liquid. To the occurrence of this septic infection of the wound the fatal result is due, for it prevented the healing of the wound by first intention, was an important factor in the production of the secondary hæmorrhage, led to the complete closure of the channels for the venous return from the limb, and induced the constitutional change which was manifested by fever, sweating, diarrhœa, delirium, and jaundice.

2. *The treatment of the wounded vein.*—From the "Medical and Surgical History of the War of the Rebellion," Dr. Lidell's article in Ashhurst's "International Encyclopædia of Surgery," and Nicaise's "Thesis," I have collected the following cases of wounds of the femoral vein. The cases in the accompanying table (page 259) illustrate several varieties of wound of the femoral vein: (*a*) wound of the vein during the removal of tumours, four cases, all ending in recovery; (*b*) accidental wound of the vein by bullet, sabre, hook, or fragment of bone, eleven cases—only three of these patients escaped with their life; (*c*) wound of the femoral vein during ligature of the artery for aneurysm, two cases; (*d*) secondary hæmorrhage from the femoral vein, three cases, one of which recovered; (*e*) simultaneous wound of the femoral vein and the femoral or profunda artery, ten cases, with only one recovery. As in so many other statistical inquiries the cases have varied so much in their nature, and in some instances the reports are so scanty, that this table cannot be relied upon as a safe and sufficient guide to the treatment of a wounded femoral vein. But at the same time it shows certain facts, the most striking of which is the variety of treatment that has been adopted, and the success that has attended almost every means used.

Ligature of the wounded vein.—The table shows four cases, in one of which the ligature was applied laterally; all these patients recovered, and no mention is made of subsequent œdema or congestion, still less of gangrene. On the other hand, Verneuil is quoted by Nicaise as having had three cases of lateral ligature of the femoral vein, all fatal. During the removal of cancerous glands from the groin on one occasion I had to tie the saphena vein at its juncture with the femoral vein. The man recovered, without any symptom referable to venous obstruction. In

M'Clellan's case of lateral ligature of the vein, he speaks of the wound as a large one. The relative value of the lateral and circular ligature is the same in the femoral vein as in other situations, and although many cases of successful lateral ligature of large veins are recorded, the fatalities are too numerous to warrant its repetition, except in the case of punctures and small wounds.

Ligature of the femoral artery.—The table shows in all six cases, three ending in recovery, and three in the death of the patient. The best known case is that of Langenbeck, who failed to secure the vein, and then, on ligating the artery, found the venous hæmorrhage stop. In one of the cases the ligature was placed upon the external iliac artery.

Ligature of the femoral artery and vein.—This was done in three cases for wound of the femoral vein only (including one case of wound of the ending of the saphena vein), with two recoveries; and in four cases for simultaneous wound of the two vessels, with one recovery and three deaths. The ligature of an artery for wound of the corresponding vein was first done by Gensoul in 1831; but Langenbeck's name is specially associated with this form of treatment, which has been advocated also by Tillmanns and others. Langenbeck urged that the danger of ligating the main vein of a limb was the occurrence of gangrene from venous obstruction, and that by tying the main artery the supply of blood to the limb was so reduced that this danger was obviated. There are two sufficient answers to this argument: in the first place, it has been shown that ligature of the main vein of a limb does not produce gangrene so long as the various accessory channels of venous return are patent; in the second place, ligature of an artery lessens very materially for a time the *vis a tergo* of the blood in the capillaries and veins, and therefore reduces the force which is opposed to the venous obstruction. I have three times ligatured the axillary vein while removing malignant growths from the axilla, and have not observed any serious effects upon the circulation, and many cases might be quoted to show that Langenbeck over-estimated the injurious effects of ligature of the main vein of a limb.

The treatment of a wound of such a large vein by compression is not to be recommended, especially in view of the fact that the hæmorrhage, when apparently stayed, is liable to burst out during any expiratory effort, as was the case in my patient. Ollier's case, in which the only treatment adopted was suture of the skin wound and light compression, is a very striking one, and may serve as a good example in like instances.

The best treatment, therefore, appears to be the ligature of the wounded vein, and should I meet with another similar case this is the practice I am prepared to follow. When the secondary hæmorrhage occurred, the question of amputation suggested itself, but such a course would have been quite unjustifiable in view of the success which has sometimes attended ligature of the femoral artery and vein. In my case it would have been doubly wrong, for it would have inflicted a most serious injury upon a patient already doomed to death from the septic thrombus in his iliac veins. In a table of cases of hæmorrhage from veins in the "Surgical History of the American War," fifteen cases of wound of the femoral vein are mentioned, of which only two recovered.

SOME CONSIDERATIONS IN REGARD TO THE CAUSATION OF SEX.

BY A. J. WALL, M.D. LOND.,
H.M. INDIAN ARMY.

So many theories have been put forward as to the causation of sex that it would require much time even to state them. The object, however, in view at present is to propound no theory whatever, but simply to examine facts that may have a bearing on the subject, and, if possible, to bring out any relation that may be found to exist between the occurrence of sex and any well-ascertained circumstances in regard to the parents, and to draw therefrom any conclusions that may seem just.

In the lower animals there are so many different arrangements of the procreative process that it is not easy to determine what is the exact relation they bear to sex as seen in the higher members of the animal series. Of course, the essential point in all reproduction is the same—namely, the separation of a portion of the tissue of an organism, and its development after more or less change—a change sometimes so great as to surpass the creations of a fairy tale—into an organism like that from which it took its origin; and though in by far the greater number of animals the process has become modified, so that portions of tissue of two organisms unite before development proceeds, yet that it took its origin in the simpler method is evident from the fact that even so high up in the animal scale as birds the first step in the development of the ovum—cleavage—may occur without any interference of the male element whatever, though the process continues no further: a survival of great importance as evidence of an earlier and simpler method of reproduction. But, judging from the facts that intermediate between the simplest forms of reproduction and the complex ones, in which two individuals are required, there is a large class in which both sexual elements are placed in one individual, though not necessarily for self-impregnation, and also that even in the highest animals there is an occasional natural effort to revert more or less completely to this arrangement, it would seem that sex is merely an abortion of one class of sexual organ in each individual, and we must therefore look upon the sexual form which accompanies this as purely secondary. And widely different in appearance as the sexes in the higher animals often are, yet but remove the sexual organs and you have in each case a being with characteristics between the two. Moreover, if there is any imperfection in the development of the sexual organs, there is generally an approach in outward characteristics to the appearance of the other sex, showing that it requires the presence in perfection of one class of organ to exclude entirely the approximation to the opposite sex.

But the mode in which this suppression of one class of sexual organ has been brought about is exceedingly obscure, though a very cursory glance at the animal world would suggest that it is not always produced in the same way. In the class Insects, for instance, we have in the well-known case of the honey-bee perfect females and sterile females produced from eggs impregnated by the male, but the larvæ of which are fed in different ways; whereas males are produced from eggs that have never received any of the male element at all—a position proved by the fact that if the communication with the spermatheca in the queen be interrupted, the ova then produced only bring forth males, and also that when the common bee is crossed with the Ligurian, only the queens and workers have any trace of the cross-breeding, the males being purely of the race of the queen from whom they proceed. In ants also it occasionally happens that the workers, who of course take no part in the nuptial flight, bring forth eggs, and as far as observation goes—certainly in Lasius niger and Formica fusca—these eggs invariably produce males. Now, whatever views may be held as to the cause of sex in man—and many of them are sufficiently eccentric,—no one has ventured to suggest that it is due to the absence or presence of impregnation by the male element. But even in the same group of animals sex is not always arrived at in the same way, for in this very class Insecta—in Chermes abietis for example—no male individuals have ever been detected, and perfect females lay eggs from which only females are produced. In aphides, again, after several generations of sexless forms, perfect males and perfect females are produced for normal sexual reproduction. In looking, therefore, for the cause of sex, we should be even more careful than usual in not generalising too hastily, and any evidence obtained should be applied in reasoning strictly to the group from which it comes till other observations show that it may be safely extended.

As in man differentiation of sex occurs by no means late in fœtal life, attention is naturally directed to the condition of the parents, and though we cannot with any prospect of success investigate all the circumstances relating to them, yet there is one fact often ascertainable with precision, and that is the age, which is necessarily correlated with some of the most important conditions of life. It will be, then, the present object to examine all the evidence accessible on this subject, and to see what light is thrown on the occurrence of sex; but it may be well to state at the outset that age *of itself* cannot be the cause, for both sexes appear to be produced at nearly all possible ages of the parents.

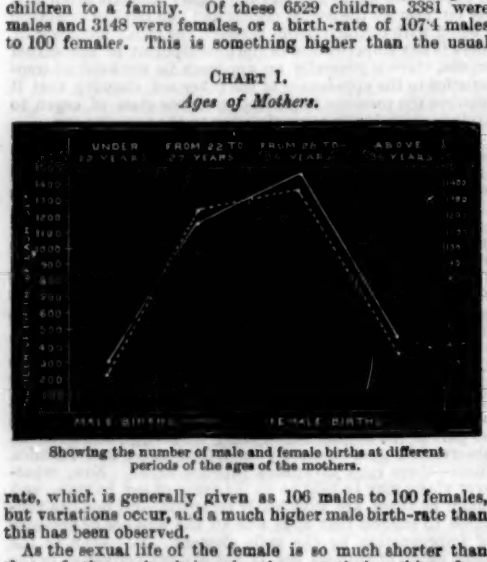
In regard to man, the examination of this question has not attracted the attention it deserves. Sadler, in his "Law of Population" (vol. ii., page 343), gives a table by which

he believes he proves that the older the male the greater is the proportion of male births; but as he admits that in only 381 families were the ages of both parents known to him, and as he classes together all offspring at whatsoever ages of the parents they may have been produced—a proceeding that will be seen in the sequel to be well adapted for defeating the purpose of the examination,—his conclusions are not worthy of serious consideration.

As this inquiry must be necessarily statistical, the first point to be aimed at in the statistics is their accuracy. Therefore, the Royal Houses of Europe were first included. They contributed in all 120 families, our own Royal Family giving 15 of them. The authority chiefly used was the well-known "Almanach de Gotha," and from the same source were taken 27 other families of princely rank. No family was utilised except those in which the dates of the births of both father and mother were exactly given. Next follow 890 noble English families from the "Peerages"—the volumes used being twenty-five years apart in date, so as, if possible, to include two generations. In addition, 163 families are taken from the "Gothaisches Genealogisches Taschenbuch der Gräflichen Häuser." These families had each of them several children, and the mother's house was given in the volume as well as the father's, ensuring, as far as possible, the accuracy of the date of her birth. Thus in all there are 1200 families with 6529 children, being 5·4 children to a family. Of these 6529 children 3381 were males and 3148 were females, or a birth-rate of 107·4 males to 100 females. This is something higher than the usual rate, which is generally given as 106 males to 100 females, but variations occur, and a much higher male birth-rate than this has been observed.

CHART 1.

Ages of Mothers.



Showing the number of male and female births at different periods of the ages of the mothers.

As the sexual life of the female is so much shorter than that of the male—being in these statistics thirty-four years, the earliest age of a mother being sixteen and the latest forty-nine,—it will be advantageous to consider first the influence of the age of the mother. Does, then, this proportion of 107·4 males to 100 females obtain equally in all periods of the mothers' lives? To ascertain this it will be convenient to divide the whole time of fertility in the female into periods corresponding to the natural stages of life. The earliest period, that of immaturity, may be taken as commencing from the date of the first birth at sixteen years of age till the completion of the twenty-first year. Within this period there were 589 births, of which 315 were males and 274 females, or a birth-rate of 114·9 males to 100 females—a great excess of male births over the average of 107·4, which occurs at all ages.

The next natural period is that of complete womanhood, when the sexual powers are at their height, which may be taken as from twenty-two to twenty-seven years, both years being included. During these years 2275 births took place, of which 1128 were males and 1147 females. This is equivalent to a birth-rate of only 98·3 males to 100 females—a very complete reversal of the usual frequency of the occurrence of the sexes.

After this the sexual powers undergo a decline, but it will be convenient to divide the remaining sexual life into two periods using the end of the thirty-sixth year as the dividing line. From the twenty-eighth to the thirty-sixth year inclusive 2823 children were born, giving 1489 males and 1334 females, or a proportion of 111·6 males to 100 females. Here the males again asserted their predominance considerably beyond the mean proportion.

The last period will be from the thirty-seventh year to the termination of sexual life at forty-nine years. Here 842 births occurred, of which 449 were males and 393 females, being 114·2 males to 100 females—a very great excess of male births, being only a fractional part below the excess noted in the period of immaturity.

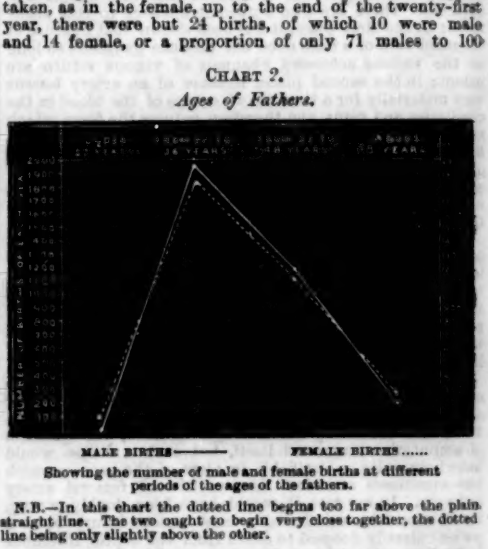
There is, therefore, evidence that the proportion between the male and female births is constantly changing, and that the varying proportion bears a distinct relation to the sexual condition of the mother. Chart 1 will show more clearly than any words this relation between the age of the mother and the sex of the offspring.

We must now turn to the influence of the age of the father. But we have here a difficulty to contend with, which is due to the much greater length of the sexual life of the male. In the tables containing these statistics the age of the youngest father is nineteen, and the oldest eighty, giving a sexual life of sixty-two years. To investigate thoroughly an extended period like this would require a far larger number of families than is at present available.

In the period of immaturity in the male, which may be taken, as in the female, up to the end of the twenty-first year, there were but 24 births, of which 10 were male and 14 female, or a proportion of only 71 males to 100 females. This, taken together with the evidence we have obtained from the mother in the time of immaturity, when no less than 114·9 males were born to 100 females, shows how little capable the immature parent is of impressing its own sex on the offspring. But it shows, moreover, that the immature male has even less power of doing this than the immature female.

CHART 2.

Ages of Fathers.



Showing the number of male and female births at different periods of the ages of the fathers.

N.B.—In this chart the dotted line begins too far above the plain straight line. The two ought to begin very close together, the dotted line being only slightly above the other.

After the twenty-second year a difference is perceptible in the influence exercised by the male and female parent. In the female from twenty-two to twenty-eight years a considerable excess of female births takes place; but after that there is a decided decrease; whereas in the male there appears to be no great difference in the proportion of male to female offspring till considerably after thirty years. Thus from twenty-two to thirty-six years of age, both inclusive, of the fathers, there were 3820 births, of which 1997 were males and 1823 females, or 109·5 males to 100 females—an excess of males beyond the mean proportion.

In the period from thirty-seven to forty-eight years there were were 2281 births, with 1180 males and 1101 females, or a proportion of 107·1 males to 100 females, or a slight decline of males from the previous rate, and very close indeed to the mean proportion.

In the last period, that of decadence of sexual power, from forty-nine years to the limit of sexual life, here given at eighty, there were 404 births, with 194 males and 210

females, or a proportion of only 92·4 males to 100 females. That is to say, in the period of declining sexual power in the male the proportion of females born is greater even than at the period of the greatest energy of the female, from twenty-two to twenty-seven years. At the same time, the proportion of males produced by male parents in their declining years is considerably greater than at the age of their immaturity. Chart 2 illustrates these varying proportions.

(To be concluded.)

ON A CASE OF

INCISION AND FREE DRAINAGE OF THE LUNG FOR PHTHISICAL CAVITIES.

BY ARTHUR NEVE, F.R.C.S. EDIN., &c.

IN the very dawn of surgery it is probable that the chest was opened from time to time when abscesses pointed outside it. In this sense "pulmonotomy" is no new proceeding. But incisions through the thoracic wall for gangrene, deep-seated abscess, and bronchiectasis or tubercular cavity are truly modern operations, differing from the former as widely as the counter-puncture and thorough drainage of an abscess differs from the rude gash made by some Polynesian savage. The advance of visceral surgery has, indeed, only been rendered possible by the increased precision of diagnosis; and there is little cause for boasting of surgical advance, when in such a large proportion of cases the increased accuracy of diagnosis only makes us feel the more keenly our remedial powerlessness. It is only within quite recent years that notices of attempts to drain purulent collections in the lung itself have appeared in the journals. As far as I can make out, from reference to Dr. Neale's valuable Digest and the medical journals, the cases as yet are confined to one or two for abscess, several for gangrene, and more recently one or two for bronchiectasis. But that the operation has not taken a recognised position is shown by the fact that in Quain's "Dictionary of Medicine" it is only mentioned in connexion with gangrene, and then but casually as an alternative of tapping. The case which I have to record is as follows:—

A young man, haggard and wasted to a degree, was admitted into the C.M.S. Mission Hospital on April 10th, 1886. For a year he had been suffering from violent cough and profuse expectoration. His appearance was that of a man in the last stage of phthisis. His fingers were much clubbed. The expectoration amounted to a pint and a half or two pints in the twenty-four hours. It was tough, and in large flocculent, purulent masses. Microscopic examination showed a very considerable proportion of pus cells, with elastic fibres, &c., and swarming with bacilli. Examination of the chest revealed the presence of cavities in the upper and anterior part of the right lung, while the right base and most part of the left lung was fairly healthy. The left apex appeared condensed, with possibly commencing softening. For nearly three weeks the patient was treated with cod-liver oil, tonics, eucalyptus and creasote spray, and counter-irritation. During this time there was no improvement, and the patient (a troublesome one) was clamorous for something to be done. Accordingly on April 29th, having administered chloroform, I made an incision two inches long close to the right nipple, through which a corresponding portion of the fourth rib was resected, with the periosteum attached. The pleural surface was, as I expected, firmly adherent. I then forced my finger inwards and upwards in the direction of the cavities. There was no such large cavity close to the wound as I had hoped to find; but upwards it entered two small cavities. The tissues were hard, but friable. I did not attempt to open the cavities on the axillary side, deeming that they would drain by the bronchi into the wound. A large-sized drainage-tube, six inches long, was passed into the lung, and the wound closed by a pad of gauze and a sawdust bag. Hæmorrhage was quite inconsiderable, and the air whistling through the wound gave promise of good drainage. Within two days the expectoration by the mouth was diminished to three or four ounces, and was no longer accompanied by the distressing cough which the man had complained of. There was, however, much pain about the wound. It was daily washed out with corrosive sublimate solution, and pure oil of eucalyptus was poured into the tube. At first this gave rise to cough, but toleration was established. Inhalations of creasote and eucalyptus were continuously maintained by keeping the pad on the wound moist with them. The discharge from the tube was chiefly muco-purulent; at first bloody, later thick and tenacious, but progressively less so. About the fourth week the patient began again to complain of the drainage-tube (which he had himself removed several times during the first two days); a little blood also appeared on the dressings; so, fearing ulceration into the vessels of the lung, I removed it altogether. In the early part of June the sputum continued healthier, and he went home. On the 24th he returned. The improvement was then striking, especially in the local signs. The chest around and above the wound was considerably contracted, and sucked in. The sinus was freely open, and upon coughing some mucus was expelled from it. The healthy area of the lung seemed increased. The apex of the left lung, however, showed more signs of breaking down. He remained under observation in hospital for two days, and was photographed. The expectoration was about ten ounces in twenty-four hours, but was chiefly clear and watery, with a few nummular masses similar to those of which it formerly entirely consisted. His cough troubled him only in the morning; he slept and ate well, almost ravenously, and gained strength, though but little flesh. He was then sent to a mountain sanatorium 8500 feet above the sea. Up to this point the improvement effected was entirely by means of the operation. Since that time I have not seen the patient, but occasionally receive reports from his friends. After September he became weaker. He is said to wander over the country, is seldom at home, and does not work. There still remained a small opening in the chest.

Remarks.—In resorting to pulmonotomy for a case of advanced phthisis, I was performing an irregular proceeding, though it was fully justified by the amount of the expectoration, by the limitation of gross lesions to one lung, and to a not very extensive area therein, and, therefore, by the possibility of effective drainage. An operation, moreover, offered the means of directly medicating the affected parts, and of delaying or arresting the advance of disease in the other lung, which would have rapidly determined a fatal issue. For these reasons I did not hesitate to avail myself of the willingness of the patient to undergo an operation which he was given to understand would alleviate his distress. The result was as satisfactory as I had anticipated. The cavities which were opened, and also those higher up in the apex, ceased to secrete such a large amount of sputum, and apparently cicatrised. In this they were assisted not only by the drainage and topical medication, but by the removal of a considerable portion of rib, with the consequent possibility of retraction of the thoracic wall. The slight amount of respiratory movement of the upper part of the chest and lung is probably the chief cause of the special liability of the apex to the formation of tubercle and its resulting cavities; but even this slight movement is probably unfavourable to the healing of such cavities when the pleural surfaces are adherent. I therefore think that in many cases of phthisis with apical vomicæ it might be beneficial to remove portions of the upper ribs, as in Estlander's operation for empyema. If a similar case presented itself, but with less abundant sputum, I should be disposed to try the resection of portions of the second and third ribs, with intra-pulmonary injections. As the preliminary to all operative methods, the usual antiseptic inhalations and other remedies should be fully tried. Having decided to operate, the aspirator should be used to confirm the diagnosis as to the position of the cavity. The first risk met with in operating is that arising from non-adhesion of the pleura. Circumstances may point towards adhesions, but the diagnosis must always be attended by uncertainty. Puncture and drainage of a cavity, where the pleural cavity is not shut off from the purulent secretion, would lead almost necessarily to a pyogenic pleuritis. If after resection of the rib the pleura is found non-adherent, it would probably be best to unite the lung by catgut stitches to the thoracic wall, and postpone incision into the lung for a few days, when the exuded lymph will occlude the pleural cavity; this might not be practicable on account of collapse of the lung, but at least it might be attempted by seizing the lung with a sharp hook, and effecting the suture promptly.

In making the incision it is not necessary to use a sharp instrument. The friability of the lung often permits of the finger being used, in which case dangers are avoided and information procured which no other instrument could give. In my case bleeding was insignificant, and most surgeons have found that if it occurs it is easily arrested. Drainage takes place less by gravitation than by the expiratory efforts; but position can do much towards helping these. Similarly, position, aided by inspiratory efforts, will effectually distribute antiseptic applications, such as iodoform dust, eucalyptus oil, &c., to subjacent parts of the lung, and their effect may be kept up by the use of volatile antiseptics in the dressing used. As in all my surgical cases for the last four years, I use large pads of cedar sawdust, to which I add creasote &c.; these act as respirators, filtering and warming the air. I may add that the operation cannot be taxed with failure because a permanent cure is scarcely to be achieved, inasmuch as legitimate operative interference is necessarily delayed until the disease has made great headway, and the local symptoms, grave as they may be, are but the manifestations of a graver constitutional disease.

Kashmir Mission Hospital.

CASE OF STRONGYLUS GIGAS.

By R. CANNON, L.K.Q.C.P., L.R.C.S.I., M.D. CHILL,
LATE SURGEON, ROYAL NAVY.

ON August 20th I was called to see a boy of twelve years of age suffering from febrile symptoms of three days' duration. He complained of headache, aching in the limbs, and general malaise. He had had epistaxis, his tongue was foul, and his bowels costive; temperature 39·50° C.; pulse 90. The night before I saw him he could not micturate, and on the morning of my visit he had done so without difficulty. In the chamber-vessel, which he had used in the upright position, a worm had been seen. The "patio," or court of the house, was asphalted and dry, and it was quite impossible that any earth-worm could have been introduced by chance into this vessel. I take this to be a case of strongylus gigas, of which only seven cases at all trustworthy have, according to Davaine, been reported. The worm was in three parts, and was of a reddish colour, as if blood-stained. It measured about ten inches. Around the head could be seen prominences, as if tubercles or rudimentary eyes; some fine membranous films, as if of a delicate cyst, were adherent to the broken parts. The urine contained no blood or any deposits; it was of a darkish colour, but not more so than one sees in febrile states. I at once put the specimen into spirit and have not since extracted it, contenting myself with examining it with a lens. It does not appear to me to be an intestinal lumbricus, and I have not the slightest doubt that it issued from the boy's urethra. He was not aware of having passed anything unusual until the vessel was brought to him by his mother. There could be no object in deception of any kind. The boy was treated with salicylate of soda and with nightly doses of antipyrine, and after copious bleeding had taken place from the nostrils the headache and febrile symptoms were in a few days quite relieved, and the boy had no other troubles in connexion with the urinary organs.

We know that this parasite is found in the kidneys and urinary passages of such animals as the weasel, hare, ox, dog, wolf, &c.; but in the present case the only animal that could have interfered would be the dog. I saw no dogs about the "patio," and, besides, it would have been ridiculous to suppose that a dog would have had the sagacity to deposit his strongylus gigas in a chamber-vessel; moreover, on the previous night the boy had been unable to pass his urine, and the parasite must have occupied the urethra or blocked its entrance into the bladder.

Cases have been recorded in which intestinal worms have found their way into the bladder. This, of course, might easily occur in the female, but in the male the difficulty would be great. The boy, in this instance, was a quiet sensible lad, not by any means hysterical or a trickster, and I think the case from its rarity is very interesting and worthy of the fullest investigation. Of course the interest turns on this worm being a specimen of strongylus gigas or not, and this fact I have no means of deciding. I showed the specimen to my friend Dr. von Schroeders, of this city, but he had no plates depicting the parasite. I also showed it to an American colleague, but, curiously enough, he had never heard of such a thing as strongylus gigas.

Valparaiso, Chili.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF EXOPHTHALMIC GOITRE TREATED BY THE CONTINUOUS CURRENT.

By W. B. HADDEN, M.D., M.R.C.P.

DRUGS are uncertain, and unfortunately often useless, in exophthalmic goitre. I therefore determined to try galvanism in this case, and the result, as will be seen, was very satisfactory.

The patient was a single young lady, aged twenty-eight, a professional nurse. She consulted me on Jan. 15th, 1886. For nine months previously she had found difficulty in distinguishing the names of streets, and for three months her friends had noticed that her eyes were prominent. She had remarked some fulness of the throat for two months. When I first saw her the eyes were markedly prominent and somewhat injected. The thyroid was large, mainly on the right side, but not pulsating. The pulse was 140. There was no cardiac bruit. She had frequent and excessive perspiration. There were constant efforts at deglutition, and she suffered from borborygmi. The bowels were regular. There was no derangement of the catamenia. She expressed herself as feeling pretty well in herself; but on being questioned said she had some dyspnœa and dysphagia. She had never suffered from any illness except measles. I ordered a constant battery of ten cells to be used night and morning. The negative pole was placed on the nape of the neck, and the positive over the thyroid gland and also over the eyeballs, the eyelids being closed. Each application did not extend beyond ten minutes. There was a marked improvement in a month.

On June 22nd she was practically well. The right eyeball and the right side of the thyroid were still slightly full. There was no palpitation, from which previously she had suffered, and the pulse was reduced to 96. The perspiration and sensations of excessive heat had quite disappeared. I have seen her frequently since, and the improvement is maintained. She tells me that when her illness first began she used to sleep in cold weather with only a sheet over her. During the time she was under treatment her weight increased by more than one stone. No medicine was given except belladonna for two or three weeks; but this drug, which was prescribed at the very onset, was discontinued, as no beneficial result ensued. The battery was not used at this time.

Remarks.—The treatment of exophthalmic goitre by this method deserves a trial. I do not wish to dogmatise from one case; but I may mention that I have had quite recently the opportunity of seeing the beneficial effects of the continuous current in another patient.

Welbeck-street, W.

ON A CASE OF TETANUS SUCCESSFULLY TREATED WITH CHLORAL HYDRATE.

By J. HAWKES, M.D.

I THINK the following notes on a case of idiopathic tetanus treated with chloral hydrate throughout the greater part of its duration may prove interesting, as indicating the almost specific effect of the drug and the large doses tolerated in this often intractable complaint.

A healthy country lad, aged thirteen, employed in outdoor work, was taken ill with symptoms of tetanus about a week before my attendance was requested on Nov. 16th. When I saw him he was lying on his back in rigid opisthotonos; dorsal region and thorax prominently arched, and stretched towards the right side; head drawn back; eyelids partly closed; lips retracted, exhibiting marked

risus sardonicus; muscles of neck and trunk hard and board-like; lower extremities extended; breathing hurried and shallow. The boy had been unable to sleep. The jaws were firmly clenched to within about a quarter of an inch. I ordered belladonna liniment to the spine, powdered jalap with calomel, and a sudorific mixture three times a day. As he resided at some distance from my house, two days elapsed before I saw him again, when his condition had undergone no change. The bowels had freely acted. Linseed-meal poultices sprinkled with turpentine were applied to the dorsal region, and ten grains of chloral hydrate, with twenty grains of bromide of potassium, were given every four hours.—Nov. 21st: Has had two hours' sleep, the first he has had since the beginning of his illness. Decubitus natural; opisthotonos much relieved, but not disappeared. Countenance natural; lips no longer retracted, but the jaws are clenched as before. To continue treatment, and apply a mustard-and-linseed poultice to the nape of the neck.—22nd: Slight improvement.—24th: The chloral to be increased to twenty grains and the bromide of potassium to thirty, and taken every four hours.—27th: Can open his mouth more freely, and speak distinctly, but the rigidity persists in the abdominal and thoracic muscles; the neck is easier. To apply linseed poultice with turpentine to the neck as before. To continue the treatment.—Dec. 2nd: Lies placidly in bed; answers questions distinctly; sleeps for two or three hours, but never more than three; bowels act regularly; takes semi-solid food. To continue the treatment.—6th: Is going on fairly well, but some rigidity continues, especially in the trunk; can move the feet freely. The chloral treatment was now suspended for four days, and henbane with fœtid spirit of ammonia substituted, but no improvement followed.—10th: Ordered fifteen grains of chloral hydrate, twenty minims of tincture of lobelia, and twenty minims of compound tincture of cinchona, thrice daily.—13th: Belladonna plaster applied to the whole dorsal region. To continue the treatment.—17th: Has obtained further relief, the rigidity becoming less. To continue the mixture. Is wearing the plaster, which he feels to be beneficial.—22nd: Is altogether better. To continue the mixture and repeat the belladonna plaster.—24th: Is very comfortable, and almost convalescent.—29th: Was able to enjoy his Christmas dinner downstairs with the rest of his family. Appears to be fairly well. To discontinue the treatment.

Remarks.—This was a case of idiopathic tetanus brought on by exposure to wet and cold. It presented the symptoms of trismus very markedly, and there was absence of sleep for a long time. It appears to me that chloral alone or combined with bromide of potassium controlled the severity of the disease, and if it did not actually cure the malady it afforded time for nature to exert its recuperative power.

Northampton.

SURGICAL MISHAPS.

By E. L. HUSSEY, F.R.C.S.E.

ONE of the cases mentioned by Mr. Teale reminds me of a case formerly under my care.

In 1861 a young lady applied to me with a small tumour behind the angle of the jaw on the right side. It was tough and almost cartilaginous under examination, and the skin was generally adherent over the surface. The case had been seen by the late Mr. Hester and Mr. Owen of Oxford, and by Sir H. Acland. It was thought to be of a cystic nature, and the swelling had been injected with tincture of iodine. I cut through the substance in its whole thickness, and endeavoured to clear away the contents from each half; this could only be done to a very slight extent. The wound healed favourably. A second operation was undertaken some months afterwards. The skin was divided, and separated without difficulty from the tumour. This now appeared to be about the size of a large walnut and of a fibro-cellular structure. I cut off the exposed part, so as to clear the wound for a deeper dissection. Then, fixing a hook in the remaining part, I endeavoured to draw it forwards. This I was unable to do. The attachment was evidently very deep; the skull itself moved with the motions of the hook. I cut off, as deeply as I could, the part of the tumour which was transfixed by the hook, and closed the wound. This healed as favourably as after the former operation. The lady afterwards married, and she died from phthisis more than twenty years after the operation. There was not any fresh growth of the tumour. Being in communication with Mr. Cæsar Hawkins at the time of the operation, I mentioned the case as a disagreeable piece of active surgery. He told me that Mr. Liston, in a similar case, found, upon the death of the patient, that the tumour had its origin in the base of the skull.

Oxford.

HYDATID OF LIVER TREATED BY PUNCTURE; COMPLETE RECOVERY.

By FREDK. A. A. SMITH, M.D.

MRS. K——, aged forty-eight, struck her right side against the kitchen table about five months ago. She did not think anything about the accident, but soon afterwards felt a pain in the right side, which gradually enlarged and extreme emaciation set in. Cancer was diagnosed by several medical men, and one thought the ribs were fractured. When I saw the patient, she was extremely weak and emaciated, and looked like a woman dying of cancer. On examination the ribs of the right side were found very prominent, with bulging of the intercostal spaces. Percussion dulness extended over the median line and downwards to nearly three inches below the ribs. The tumour felt firm and smooth, and gave one the impression of an enlarged liver. At a spot, the size of a florin, an inch below the margin of the lower ribs and two inches to the right of the median line, slight fluctuation was felt. Diagnosing the case as one of either abscess or hydatid cyst, I plunged a No. 1 trocar and cannula into the centre of the fluctuating spot, in a direction upwards and backwards, and drew off about six ounces of limpid, straw-coloured fluid. A small piece of plaster was placed over the puncture and a towel tied tightly round the abdomen. Nothing more was done, and the patient got rapidly well and is still alive. The only precautions I took were to stretch the skin, so as to make the opening valvular and arrest the flow of liquid before the cyst was entirely emptied; thus no air was allowed to enter.

The interesting part of this case was the distinct history of a blow, and the rapid enlargement of the tumour and extreme emaciation. The fluid was examined carefully under the microscope, but no booklets were detected.

Cheltenham.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SUPRA-PUBIC LITHOTOMY IN A MAN AGED SEVENTY-TWO; CURE; SUBSEQUENT DEATH FROM APOPLEXY; REMARKS.

(Under the care of Mr. JOHN CROFT.)

THE following case is one of those in which the operation which was performed is specially advantageous. There were two large stones, an enlarged prostate, and a patient who was in a very poor state of general health. He was not in a condition to bear the prolonged administration of an anæsthetic, or the manipulation which would have been called for had the size of the stones permitted of lithotrity; therefore no very accurate measurement was taken of the stones before operation, the supra-pubic method being so clearly indicated.

J. T——, aged seventy-two, a labourer, was admitted into Edward ward on July 12th. About twelve years ago he noticed pain at the end of the penis on micturating; during the last two or three years the pain has increased. Micturition is and has been very frequent, he not being able to hold his urine for more than two hours. Has on several occasion had catheters passed, but has not suffered from retention of urine. On examination per rectum the prostate

was felt considerably enlarged laterally. On passing a sound the sensation of striking a stone was elicited, and appeared to be produced by the presence of a very large one or by a collection of calculi, stone being struck on either side as the sound was rotated. The urine was very offensive, alkaline, and contained pus. The patient was much enfeebled by suffering and age, by degenerated arteries, and a great tendency to bronchitis.

On July 17th Mr. Croft operated. Chloroform was administered. A catheter was with some difficulty passed into the bladder, and this was washed out three times with a solution of boro-glyceride, eight to ten ounces of this solution being left in the bladder, and the rectal bag injected with twelve ounces of fluid. An incision three or four inches in length was made in the middle line above the pubes. There was a fair amount of abdominal fat. The tissues in front of the bladder were unusually friable and vascular, the veins being somewhat varicose in appearance. A puncture was made in the bladder with the point of a scalpel; through this the forefinger of the left hand was inserted and the wound dilated. Two large calculi of lithate of ammonia &c. were extracted, together weighing over four ounces, one weighing 969 grains and the other 945 grains. No other stone was felt, but the middle lobe of the prostate formed a well-marked projection into the bladder. The opening in the bladder was not closed, but two stitches were placed in the upper part of the abdominal wound. The bag was removed from the rectum. A large drainage-tube was inserted, and the wound plugged with lint soaked in carbolised oil; over this was placed lint spread with iodoform and vaseline ointment and finely drawn carbolised tow and absorbent wool. Two hours before the operation the patient had had a rigor, and the temperature rose to 101·4°; in the evening it was normal.

For three days the patient was kept on his back, and a flexible indiarubber catheter retained in the urethra. The wound was dressed every two hours in a similar manner to that employed after the operation. For a long time the old man was very feeble and apathetic, requiring great attention and careful feeding and nursing. The catheter was of no service, and therefore removed.

On the 18th he had slept well after a subcutaneous injection of morphia, but complained of pain in the abdomen due to flatulence; warm milk instead of cold was given, and he was much easier in the afternoon. There was slight cough, and his breath was very offensive.

19th.—Wound washed out morning and evening with a carbolic solution. He perspires very much over the face and hands.

20th.—Restless, requiring the subcutaneous administration of morphia. Complaining of flatulence and cough, he was ordered an effervescing mixture of citrate of potash and carbonate of ammonia, and allowed three ounces of rum.

21st.—Allowed to lie on his side. Had an attack of convulsive character in the early morning, which lasted about fifteen minutes, during which he appeared to be only semi-conscious.

On the 23rd the bowels acted after medicine. The drainage-tube was removed on the 28th, and a sponge, which had been soaked in a warm solution of Condy, was applied over the wound. Wine was ordered, and a tonic of quinine and iron.

There was a gradual but slow improvement until Aug. 1st; during that day he complained several times of faintness and shortness of breath, but could move more easily in bed in the intervals. The urine was very offensive, and most of it came by the wound. Next day a broad strip of strapping was placed across the wound from hip to hip; and in the evening he was taken out of bed, and sat in an arm-chair for a time. The wound was kept open for more than a month after this date, and the bladder washed out daily. The temperature rose on the third day after the operation to 101·6°. This was the highest record, the reading after the fourth day varying from 96° to 98·6°. He was taught to pass a catheter for himself. When he left the hospital, the wound was firmly closed, there was no evidence of cystitis, and the man was apparently quite well.

It appears from a letter written to Mr. Croft by Dr. Thomson of Luton, who attended the patient, that the latter died suddenly on the 19th of October from apoplexy.

Remarks by Mr. CROFT.—This case is of special interest, as it is the first supra-pubic operation for stone performed at St. Thomas's since Cheselden gave up the high operation about a century and a quarter ago. He himself says that "he would not have left the high way but for the hopes he had of a better, being well assured that it might hereafter be practised with greater success." His prediction has come true. The incision into the bladder was a puncture not more than half an inch in extent; this was dilated with the finger until large enough to allow of the extraction of the stones. This lesion healed, when permitted to do so, very soundly and readily, although the exit of urine from the bladder was materially obstructed by the enlarged middle lobe of the prostate, which projected greatly into the bladder. It was only his age and debilitated condition that prevented the removal of this at the time of operation.

BULLET WOUND OF CHEST; WOUND OF LUNG; REMOVAL OF BULLET; RECOVERY.

(Under the care of Mr. CROFT)

BULLET wounds of the chest are not common in civil practice, and it is important that such should be recorded if only to increase our knowledge of the prognosis when they are treated under the most favourable conditions. That there was a penetration of the lung in this patient was proved by the amount of shock which immediately followed the injury, the hæmoptysis, the emphysema which was manifest around the point of entrance and about the swelling behind, which corresponded to this point, by the subsequent slight hæmopneumothorax, and the later development of localised pneumonia. No attempt was made to remove the bullet at first; the amount of shock was considerable, and it was not considered advisable to add to this or increase the risk of septic inflammation of the parts damaged by the passage of the bullet. For the following notes we are indebted to Mr. G. R. Anderson, dresser.

F. de C. C——, aged thirty-three, was admitted on Oct. 12th in a rather collapsed condition, suffering from a gunshot wound of the chest, of his own infliction. He used a five-chambered revolver, carrying a ·320 bullet. Before using it he threw back his coat and vest.

On admission the patient was pale; surface of body and extremities cold; beads of perspiration on the forehead; hands clammy. The pulse felt at wrist was rapid, thready, and small; respiration shallow. He spoke rationally and answered questions; seemed in a desponding condition, and expressed a wish to die. On examination, in front was found a small wound in the second intercostal space, on the left side, just internal to the nipple line. The shirt covering this region was blood-stained, blackened, and singed round a small hole corresponding to the wound. The patient wore no under-vest. On probing the superficial part of the wound the direction was found to be from before backwards and outwards. No rib was exposed. The tissues round the wound were emphysematous. On forced respiration this emphysema was increased, but air did not definitely escape by the wound. On examining the back, a small hard body was found over the vertebral border of the scapula about an inch and a half from the root of the spine, freely movable under the skin; some tenderness on moving it. There was emphysema about this also. The wound was dressed with carbolic solution (1 in 20), and a pad of iodoform gauze strapped firmly on. Mr. Croft saw the patient at 10.30 P.M. He had rallied from the shock. There had been very little external hæmorrhage, but there were signs of internal bleeding. Bright-red sputa. Dulness over left base behind; hyper-resonance in front. Emphysema was now detected as low as the pubes, extending backwards over the left loin; it also extended some little distance up the neck. It was not largely increased over the scapular region. Mr. Croft decided not to remove the bullet at once. The patient was given ice to suck, and the front and left side of the chest were covered with ice-bags.

Oct. 13th.—Retention came on; bladder emptied by catheter at 9 P.M. Some cough; bright-red sputa. Temperature 100·4°; pulse 82; respiration 36.

16th.—Some dyspnœa early this morning. Sputa merely blood-stained. Bullet wound has healed without suppuration.

17th.—Patient sleeps badly. No recurrence of dyspnœa. Catheter passed every eight hours. Temperature 98·8°.

18th.—Cough better. Sputa streaked with blood. Ice-bags discontinued. Temperature 98°; pulse 72; respiration 36.

20th.—Has control of bladder. Emphysema remains. At

the right base posteriorly, dulness, tubular breathing; and crepitations; above the left base also there is a small patch of pneumonia. Pulse 90; respiration 28; temperature 100·4°.

22nd.—Patient feels comfortable. Cough better. Temperature 98°; pulse 85.

26th.—Sleeplessness returned. Pulse 80; respiration 24.

29th.—Cough almost gone; no blood in sputa since the 15th.

Nov. 1st.—Mr. Croft removed the bullet; subcutaneous injection of cocaine (1 in 20) was given ten minutes before extraction. An incision of an inch and a quarter was made over the bullet; it was found to be beneath the muscular fascia; this was incised and the bullet withdrawn without difficulty; wound dressed antiseptically. The bullet was grooved on one side in screw-like fashion, flattened at the apex; on comparison with an unused bullet it was six grains short.

3rd.—Wound dressed; looking well. Temperature 97·4°; pulse 80.

10th.—Patient got up to-day; feels much better. Wound dressed with chlorinated soda solution three times daily.

20th.—Emphysema over abdomen, chest, and neck quite gone. Wound nearly healed; some swelling and hardness to left of incision still remains.

22nd.—A little suppuration in the wound; a drainage-tube put in.

25th.—Discharge decreasing; wound syringed out with weak solution of chlorinated soda solution.

Dec. 2nd.—Patient went out, there being still a little discharge from the wound. His mental condition has improved since admission, though he is still very desponding at times.

Jan. 31st.—Continues quite well.

LEICESTER INFIRMARY.

SUPRA-PUBIC LITHOTOMY IN THE ADULT; SUTURE OF BLADDER; PRIMARY UNION; REMARKS.

(Under the care of Mr. C. J. BOND.)

W. C——, aged forty-nine, blacksmith, very stout. Has had symptoms of stone for three years, also some enlargement of the prostate, the bladder being very irritable. At the time of operation the bladder was emptied and injected with sixteen ounces of boracic fluid, and the rectal bag then introduced and distended. On division of the abdominal wall, the bladder did not seem fully distended, so four ounces more were injected, and it was then opened in the usual way. A uric acid calculus, measuring 1¼ in. in one and 1¼ in. in the other diameter, was removed by lithotomy forceps. Catgut sutures were used, the upper being passed first through the bladder muscular wall, slightly inverting the edges of the wound; the organ was then held up by this suture, and the others introduced. A drainage-tube was placed deeply in the abdominal incision, and the bladder again injected with boracic fluid, which came out clear. No catheter was left in, but a soft catheter was passed every three hours for the first two days, the patient passing urine naturally on the third day. On passing the catheter, however, on the evening of the day of operation, the bladder contracted violently, forcing the catheter out and driving some urine between the sutures through the wound. This, however, did not occur again, and apparently did not retard the primary union of the bladder wound at all. The drainage-tube was removed on the fourth day, the wound having healed. The temperature was normal throughout.

The supra-pubic opening was chosen in this case, on account of the enlargement of the prostate, the great depth of the perineum, and the irritability of the bladder.

Remarks by Mr. BOND.—This is, I think, a good example of primary union of the bladder wound after supra-pubic lithotomy in the adult, and the result is the more encouraging, because it shows that an escape of urine between the stitches within a few hours after the operation need not necessarily prevent union, provided *that the urine be healthy* and there be no cystitis with its accompanying urinary decomposition. I think it might be useful in the present probation stage of this operation to draw attention to the following points:—First, the difficulties of suturing the bladder in a fat adult, with large pelvis and stout abdominal muscles, are considerable, but can be best overcome by inserting the upper suture first, pulling the bladder upwards by this, and so drawing the edges into apposition; the bladder wall being thick, it does not seem necessary to produce much incision of the edges, but chiefly to avoid transfixion of the mucous membrane. Secondly, after considerable or even moderate distension of the bladder when the tension is relieved by the incision and rapid escape of fluid, the organ does not contract at all forcibly for some little time, but rather collapses; the posterior wall is driven downwards and forwards by the weight of the abdominal viscera on to the anterior, thus flattening the empty viscus; and unless the finger is introduced immediately after the incision, this bulging forwards of the posterior wall may render manipulation inside the bladder more difficult, and might possibly lead to injury if the point of the knife be held directly backwards. A slight difficulty was also caused in the case related by the rectal bag being introduced *after* injection of the bladder; it thus slipped up the bowel and, passing above the sharp peritoneal fold (which can always be seen like a broad ligament on looking into the pelvis), turned forwards and increased the bulging of the posterior wall mentioned above. In the distended bladder in the living and in the dead subject, as the peritoneum is pushed or rather drawn upwards it leaves an empty fold in the angle between the abdominal wall and the receding upper part of the anterior surface or summit of the bladder; this upper portion of the anterior surface is never wholly uncovered by peritoneum by distension, and the fold mentioned above is generally pulled upwards out of the way at the operation. The uncovered space in a distended bladder has, in fact, the shape of a triangle with apex cut off, with the base downwards on the pubes, its width here corresponding to the interval between the two Poupart's ligaments. Finally, in settling the important question whether after supra-pubic lithotomy the bladder wound should be left open and a tube placed in the bladder, or whether it should be sutured and primary union attempted, I think the condition of the urine may be a guide; if that be healthy, other things being equal, primary union will probably result after careful suturing; it seems better to pass a catheter frequently than to leave one in the bladder.

ST. VINCENT'S HOSPITAL, DUBLIN.

A CASE OF PERFORATING ULCER OF THE STOMACH.

(Under the care of Dr. QUINLAN.)

B. O'C——, aged thirty-eight, cook, was admitted on Oct. 11th, in great agony. She had for several years been suffering from dyspeptic symptoms, with occasional gastric irritation and habitual constipation, for the relief of which she constantly took purgatives. On the previous Wednesday night she had taken pills and a large dose of compound senna mixture, which had a powerful effect. Immediately after she was attacked by severe pain, which kept increasing. Early on Saturday morning the pain became intolerable, and her employer humanely called in Dr. Kendal Franks, who saw her immediately, and to whom I am indebted for the notes of the case while it was under his care. Dr. Franks found her in acute agony and resting upon her elbows and knees. With difficulty getting her to lie upon her back, he found slight distension of the abdomen, but no pain on pressure worth recording. The pulse was 110, the temperature normal, and the expression of the face pinched. She became worse and worse, with increasing temperature, and was removed to St. Vincent's Hospital on the Monday. The abdomen was then greatly distended, but there was no pain on pressure; in fact, pressure seemed rather to give relief. There was much vomiting, and nothing would remain in the stomach except a little iced brandy-and-water. Her bowels had not moved since the previous Thursday; the pulse was 120, weak and compressible. The temperature 101·2°. The facial expression was almost like that of cholera. As the end was evidently approaching rapidly, treatment was directed solely to relieve her great agony, this being accomplished by large hypodermic injections of morphia, along with hot poultices and poppy fomentations to the abdomen. Relief was thus obtained. At about 11 P.M. the patient said that all her pains were gone, and spoke quite rationally to the house-surgeon, Mr. Coen, who was looking after the hypodermic morphia. About a quarter of an hour afterwards she suddenly collapsed, and died immediately.

The post-mortem examination was made ten hours and a half after death, in the presence of Dr. Quinlan and Dr. Kendal

Franks. The deceased was a fairly nourished woman, and upon opening the abdomen the intestines were found distended with gas, and the contents of the stomach effused into the peritoneal cavity. There was much peritonitis in the upper and left portions of the abdomen. On examining the stomach, a perforating ulcer about the size of a bronze penny was found in the middle of the lesser curvature, and equally divided between the anterior and posterior aspects of the stomach. The ulcer was divided into two portions by a cord of gastric substance which stretched across it. Beside the ulcer there was a thickening of the gastric parietes about the extent of a crown-piece, and evidently the result of old gastric disease. On the inside of the lower curvature were three bright-red patches of congestion of the mucous capillaries, each about the size of a sixpence. The stomach contained a small quantity of dark grumous fluid, which was tested in the medical laboratory for mineral irritants, but with negative results.

The case was evidently one of chronic ulceration of the stomach, which had greatly thinned the parietes of the organ when the perforation occurred, probably as the result of the straining incidental upon the strong purgative dose already described. The remarkable feature, however, is the fact that, with extensive acute peritonitis accompanied by very severe agony, there was a complete absence of pain when the hand was pressed upon the abdominal surface.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Genito-urinary Disease in Animals.—Pathology of Colles' Fracture.—Extra-uterine Fœtation.—Rupture of Bladder. Cerebral Tumour.—Multiple Perforative Necrosis of Skull of Tubercular Origin.—Horny Growth on the Hand.

AN ordinary meeting of this Society was held on Tuesday last, Sir James Paget, Bart., F.R.S., President, in the chair.

Mr. BLAND SUTTON related some cases illustrating Diseases of the Genito-urinary Organs in Animals. The first specimen consisted of the kidney of a sloth which had lived in the Zoological Gardens twelve years. Occupying the pelvis of the kidney were two calculi; one was small and weighed 2 grains, the other 12·83 grains. Chemically they were found to be composed principally of oxalate of lime. Although renal calculi are not uncommon in domesticated animals, they seem to be excessively rare in wild ones. A remarkable case of distension of the vaginal, cervical, and uterine cavity of a hog deer was described, and a uterus from an agouti was shown, in which some pieces of placenta and fœtal membranes had been retained. Inflammation and suppuration of the mucous membrane (suppurative endometritis) resulted; the pus made its way along the left cornu and Fallopian tube, and an abscess formed in the ovary, which ruptured into the peritoneal cavity and brought about the agouti's death by acute peritonitis. Details of a case of inflammation of the oviduct of a fowl were related. The bird during life laid eggs of very small size, and without yelk. When the bird was killed the infundibulum of the oviduct was found adherent to the ovary, so that the ova could not fall into the duct; the intestines were matted together by inflammation. A pelvis of a baboon was shown with the viscera *in situ*. The uterus exhibited a severe retroflexion. During life the animal presented well-marked symptoms, which were attributed to the condition of the uterus. Some remarks were made regarding the existence of ripe ova and follicles in the ovaries of the human fœtus, and in those of the embryos of various and diverse species of mammals.—Sir JAMES PAGET thought it would be difficult to over-estimate the value of Mr. Sutton's work, for it illustrated the influence of conditions of human life on newly imported animals and the influence of close confinement on animals not submitted to the ordinary accidents of their life. It seemed that they became subject to varieties of the same diseases that affected human beings. He asked whether the diseases in animals just after importation differed much from those found in animals long resident in the Gardens. The diseases of animals in their native state might be thus differentiated.—Mr. BLAND SUTTON said that it was the first twelve months that settled the question whether the animal would be very diseased, or whether it would go on an indefinite time and become acclimatised.

Mr. D'ARCY POWER read a paper on the Pathology of Colles's Fracture, and drew attention to the large proportion of fractures of the lower end of the radius in which the lower fragment was comminuted into the joint. He believed that, from a pathological standpoint, this variety of fracture is more common than the simple form ordinarily described; and he held that, without dissection of the injured part, it was often impossible to distinguish the simple from the comminuted fractures, since the deformity might be identical. He related the case of a man, aged thirty-nine, who fractured his wrist, and sustained such other injuries that he died. During life, and even after death, when a more careful examination could be made, the wrist presented the symptoms of an ordinary Colles' fracture, and it was only upon dissection that the true nature of the injury was apparent. The lower end of the radius was seen to have undergone a very complete crushing, the wrist-joint being implicated in more than one place. Since the occurrence of this fracture, Mr. Power had examined several other cases which appeared to be of the ordinary type, but which, upon dissection, proved to be in reality comminuted. He exhibited the six specimens before the Society. He had also collected details of cases in which, after almost identical injuries, a fairly useful joint had resulted. He concluded his paper by observing that, although the pathological interest attaching to these cases was great, he believed that the clinical importance was but small, since it was difficult to distinguish between the two classes in the first place, and when that was done the final result appeared to be almost equally good. In examining the specimens preserved in the various pathological museums in London, Mr. Power had only found twenty-five cases of simple fracture, as against thirty-two, in which, the lower fragment of the radius being comminuted, the fracture had extended into the joint, thus bearing out the observation of Mr. Clement Lucas that pathological specimens showed a very large proportion of comminuted fractures.—Sir JAMES PAGET asked if the history of the manner in which the patients fell was known.—Mr. GILBERT BARLING had seen cases of simple, impacted, and comminuted fracture into the joint, but this anatomical knowledge would not be of therapeutical value.—In reply, Mr. POWER agreed with the last speaker, and said that indirect violence was the cause of all the fractures, but the exact method of its application was very difficult to discover.

Dr. GRIFFITH showed a specimen of early Pregnancy in the fimbriated extremity of a Fallopian tube, with large extra-uterine hæmatocele; also specimens of Decidual Casts from the Uterus, discharged in cases of tubal pregnancy. The patient, who had been under the care of Dr. Matthews Duncan, was a nullipara, aged thirty-two. The catamenia had been absent four months; she suffered from morning sickness, severe right iliac pain, and metrostasis. The usual signs of early pregnancy were present, and a small, rounded, not tender, swelling was found on the right side of Douglas's pouch. Eight days before death she passed a decidual cast; and three days later, after a severe attack of pain, she became collapsed, and remained so until her death. A large hæmatocele had formed, filling the pelvis and extending into the hypogastrium, in which the blood was coagulated and shut off from the general peritoneal cavity by recent adhesions between the omentum and small intestines, illustrating the usual anatomy of hæmatoceles, if the patient survive the effusion of blood for a few days. Dr. Griffith stated that, in spite of what had recently been written to the contrary, the large majority of effusions of blood of considerable size in this region are intra-peritoneal and true hæmatoceles, whilst the large subperitoneal effusions or hæmatomata, described by Mr. Lawson Tait and others, were, for the most part, a new disease produced in abdominal operations involving the broad ligaments, and were due to a vessel being left insecure in the broad ligament, leading to a sudden or gradual distension of it with blood. The decidual casts are probably diagnostic of extra-uterine fœtation, and are easily distinguished by their size and thickness from the menstrual casts of so-called membranous dysmenorrhœa. Both tubes present similar appearances of past disease, the outer third of each being dilated, and the mucous membrane partially destroyed; the inner two-thirds of each tube appeared healthy, but on microscopical examination the mucous membrane was found to be nearly destroyed, only a thin layer of the deeper part remaining, and the columnar

epithelium had disappeared from all parts. These conditions were probably the result of past destructive inflammation, and were sufficient to account for the arrest of the ovum in the entrance of the tube. The muscular wall of the tubes was thickened, as were the walls of the vessels.

Mr. BRUCE CLARKE showed a specimen and drawing of Bladder Ruptured at its Apex. All the coats were ruptured except the peritoneal coat, and the blood was extravasated in the subperitoneal tissue. The man, aged seventy-five, had a stricture of the urethra, and had been run over. The bladder was columnar in shape.—Sir JAMES PAGET said the muscular coat was much thinned.—Mr. W. RIVINGTON asked whether there was any sign of tunicary herniæ, which were most numerous about the ureters and urachus, and might be the cause of the rupture.—In reply, Mr. BRUCE CLARKE said he took it to be some sudden rupture without extravasation of urine, of which there was not as much as a teaspoonful between the ruptured coats.—Mr. E. HURRY FENWICK quoted Mr. Rivington's statistics to show the position of the rupture in one hundred cases. Eighty-eight times the rupture was situated on the posterior surface. A case of litholapaxy was mentioned in which there was vertical rupture of the bladder between the interuretal bar. The entire thickness of the muscular wall of the bladder was torn, but not the peritoneum; pelvic cellulitis resulted in death. The rupture had evidently been made by the evacuator having been used too violently in a small bladder. He referred to the case because of its illustrating an entirely new class of violence acting on the posterior wall—a uniform fluid pressure acting from within and tearing the viscus posteriorly and vertically. He contended that the occurrence of fatty degeneration and inflammatory softening were insufficiently recognised as causative elements in the production of rupture. These pathological changes affected certain parts more than others, and the posterior wall was a common seat of both changes. This was interesting in relation to the frequency of posterior rupture.—Mr. R. J. GODLEE inquired whether in the operation of litholapaxy it was possible that the lithotrite or catheter had caused the rupture.

Mr. GILBERT BARLING showed a Tubercular Tumour of the Brain, which occurred in the practice of the late Dr. W. Russell of Birmingham. It came from a boy aged twelve years, who died in 1859 from ascites and anasarca of renal origin. Epileptiform fits on the right side without loss of consciousness, subsequent partial paralysis of the right limbs and right side of the face, and jerky movements in the paralysed limbs were noticed. The tumour was situate at the junction of the anterior and middle lobes of the brain in the upper part of the left "motor" area. The surrounding tissue was not softened. A few bacilli were found in the caseous part of the tubercular mass. The tumour was very circumscribed, and gave rise to symptoms only five weeks before the patient's death.—Dr. OWLES asked whether there was any scrofulous disease of the kidney.—Dr. NORMAN MOORE thought there might have been tubercles in the pericardium. He had found tubercles in the adherent pericardium in children who had tubercle in other parts of the body.—Mr. BARLING, in reply, said there was no record of scrofulous or tuberculous disease in the kidney.

Mr. BILTON POLLARD showed the Vault of a Skull, in which there were four perforations, which had resulted from tubercular disease of the bone. The specimen had been taken from a female child aged ten months, when she first came under Mr. Pollard's care at the North-Eastern Hospital for Children. At that time there were four chronic abscesses on the skull, for which no cause could be assigned. They were opened, and found to be situated immediately over the bone. They were all scraped out. The smallest abscess healed in a few weeks, without causing perforation of the bone, but the others remained fistulous, and a fifth abscess formed over the occipital protuberance; this was treated like the others, and ran a similar course. Four months later sequestra, involving the whole thickness of the skull, were removed. Three of the abscesses then healed soundly, but that over the occipital protuberance never quite healed. After the removal of the sequestra the child rapidly wasted, and two months afterwards she died. There were a few patches of caseous tubercle in the lungs, and the bronchial glands were caseous; the mesenteric glands were enlarged. The skull presented four perforations, the borders of three of which were smooth and healthy, but there were signs of disease still present along the upper border of the perforation in the occipital bone. Mr. Pollard had examined some of the granulation tissue, and one of the pieces of bone which had been removed, but though they showed the microscopical structure of tubercle, he had failed to detect any tubercle bacilli in them. There were no signs of syphilis of the skull. Volkmann (*Centralblatt f. Chirurgie*, 1880, p. 8) had described similar cases, which he considered to be of tubercular origin.—Mr. G. BARLING had seen a similar specimen in a child less than twelve months of age. This child had a cyst in the back. Excision of the cyst was practised and two small sequestra of the laminæ of the vertebræ removed. Meningitis followed, and death supervened. At the necropsy circular sequestra of the bones of the skull were discovered. These were not due to syphilis, but a protracted search would probably be required before tubercular bacilli could be discovered, if at all.—Mr. W. G. SPENCER referred to a case of tuberculosis of the skin in a woman aged forty, in whom necrosis of the skull was present. Tubercle bacilli were found in the cutaneous lesion, which had some resemblance to syphilitic disease.—Mr. A. E. BARKER showed a specimen of tubercular disease on the inner aspect of the skull. It was removed from a child who had suffered from very extensive caries of the spine; there was no evidence of intra-cranial disease during life. After death a whitish patch over the greater wing of the sphenoid was found between the dura mater and bone; the disease had penetrated the bone and produced a rarefying osteitis of tubercular nature.—Dr. T. D. ACLAND testified from considerable experience to the difficulty or impossibility of finding tubercle bacilli in chronic scrofulous lesions.—Dr. DAWSON WILLIAMS said that inoculations in guinea-pigs with material from tubercular joints gave rise to generalised tubercle, the lesions of which showed typical bacilli, though they were not found in the inoculated material.—Mr. A. A. BOWLBY testified to the rarity of the affection of the cranial vault by tuberculous processes. He accepted Mr. Pollard's views of the specimen. He agreed that the presence of bacilli was not necessary to the diagnosis of tubercle. The bacilli might be there in very small numbers. The same paucity of numbers existed in lupus.—Mr. BILTON POLLARD, in reply, said that Volkmann had collected eleven cases, in some of which caries rather necrosis was the chief feature. In his own specimens the necrosed bone appeared to have been previously infiltrated by tubercular material.

Dr. EDMUNDS showed a specimen of Horny Papilloma of Hand from a woman aged seventy-five. It occupied a great part of the surface of the back of the hand. There was about an inch in thickness of horn. The papillæ of the skin were hypertrophied. The hand had been burnt seventy years previously.—Mr. B. SUTTON asked whether it was to be regarded as a horny epithelioma.—Sir JAMES PAGET thought the ulcerated surface resembled that of an epithelioma.—Mr. EDMUNDS said that the growth did not extend in depth below the cutis.

The following card specimens were shown:—Mr. E. H. Fenwick: Carcinoma of Prostate. Mr. Targett: Extraperitoneal Rupture of Bladder.

CLINICAL SOCIETY OF LONDON.

President's Address.—Nephro-lithotomy.—Renal Surgery.

AN ordinary meeting of this Society was held on the 28th ult., Dr. W. H. Broadbent, F.R.C.P., President, in the chair. Owing to the lateness of the hour, the discussion on the surgical papers was postponed till the next meeting.

Dr. BROADBENT gave his inaugural address as President of the Society, and expressed his high sense of the honour and responsibility attaching to the post. If he had had an ambition outside and beyond the performance of his duty, it was certainly that of figuring as President on the honoured *rôles* of one or other of the Societies. Alluding to the progress which had been made in the study of morbid anatomy, pathology, and therapeutics, he congratulated the profession on the fact that every day tended to render practice more scientific, and that pathology and therapeutics now went hand in hand. Diagnosis was one of the most important elements of success in the career of medical men. A well-known barrister of his acquaintance, in his post-prandial chat, was wont to say that, to paraphrase an aphorism of Demosthenes, the first element of success at the Bar was good animal spirits; the second, good animal spirits; and the

third, good animal spirits. In the same way, he would be disposed to say that the great element of success in medicine was diagnosis. By diagnosis he meant careful and exact localisation of lesions. It was not diagnosis to say that a patient had paraplegia unless the nature and site of the lesion was ascertained. As to the mere fact of some cases proving exceptional, he recalled the saying of Sir James Paget, that "an exception to one rule was in reality the first indication of another and possibly unknown rule," and might therefore be the means of enabling the careful and attentive observer to carry out useful observation on a new line. He observed that in the Transactions of the Society the surgeons appeared to better advantage than the physicians—a state of things probably attributable to the fact that physicians' cases did not lend themselves to exhibition as did the surgeons' cases. The physician could, and often did, point to the arrest of phthisis in individuals and communities; the progress of Bright's disease might be staved off indefinitely if the patient only carried out the treatment laid down for him; but such cases scarcely admitted of being shown, and in any case did not appeal to the attention in the same way as the more palpable results of the surgeon's intervention. He deprecated anything in the nature of scepticism in regard to the use of drugs, and declared that when physicians used drugs they did so in good faith. Alluding to the class of drugs known as antipyretics, he said that, while very useful in a certain category of cases, the mere knowledge that they lowered the temperature was not a sufficient justification for their use. It was necessary for the physician to know *how* the temperature was lowered before he ventured to lower it. The mere existence of fever was not a sufficient reason, and there were many cases in which it was doubtful whether a reduction in temperature was desirable or beneficial to the patient. The physician was not in a position to say that a high temperature was *per se* a symptom to be combated, since it might be a necessary item in the evolution of the morbid phenomena. Referring to the employment of the salicylates in the treatment of acute rheumatism, he acknowledged that many of the inconveniences and sequelæ of that disease were abridged or prevented by its use. At the same time he enjoined a certain caution, especially in prolonged courses of the drug. He said that, since its use had become general, he had certainly seen deaths from rheumatic fever of a kind he had not met with before. In conclusion, he thanked the Society for the honour they had conferred upon him.

Mr. HENRY MORRIS read a case of Calculous Disease of both Kidneys, with remarks on the Surgical Treatment of Calculous Kidney generally. A woman, aged forty, was sent to Mr. Morris at the Middlesex Hospital on June 15th, 1886, by Mr. Nunn, for the purpose of undergoing an operation for calculous disease of the right kidney, associated with a purulent fistula of long standing in the right loin. The patient was very ill at the time, had passed several small calculi, and complained of severe pain in the right loin and frequency of micturition. Within a few days some pain had also been felt in the left loin. There was a history of albuminuria of long standing. On June 18th the right kidney was explored through an incision in the loin. The tissues round the kidney were condensed, indurated, and tenaciously adherent to the renal capsule; the kidney was small and hard. On cutting into the kidney several small calculi and some fragments of pyogenic membrane, but no pus, were removed. The operation was followed by no relief, and more intense pain was experienced on the left side. Partial and then complete suppression of urine followed, and the patient died comatose on June 23rd. At the post-mortem examination the left kidney was found very large and white, and with a great increase of cortical substance. It contained two cysts filled with pus, in one of which there was about two hundred small calculi. Numerous other calculi were scattered through the kidney. The right kidney was small, hard, and contracted, and one or two minute calculi were found scattered in its substance. There was no calculus in either ureter, and no other cause of ureteral obstruction present. It is argued from such a case as this that the surgeon may be easily misled by clinical symptoms, and also by abdominal exploration, to operate upon the wrong kidney—viz., one which, though the seat of a calculus, is not the organ which is exciting the present symptoms, these symptoms being caused by the second kidney having become calculous after it had undergone hypertrophy, owing to previous long-standing calculous disease in the first. Such cases are not favourable for operation, and differ vastly from the more numerous cases which are cured or relieved respectively by nephro-lithotomy and nephrectomy.

Mr. HENRY MORRIS read a case of Successful Nephro-lithotomy. A man aged forty-two, who for ten years had been suffering from symptoms pointing to renal calculus, was sent to Mr. Morris by Dr. George Johnson on May 4th, 1886. He was admitted into the Middlesex Hospital on May 12th, and operated upon on May 15th. A rough rounded calculus, weighing 23½ gr., was removed through an incision in the loin from the right kidney. There was no pus in the kidney. After the operation no urine whatever escaped by the wound, but blood in decreasing quantity was passed in the urine for some days. The wound healed by direct union. The patient sat up on the sixteenth day, and was discharged perfectly well at the end of the third week after the operation. For a long time prior to coming under notice he had taken very large quantities of brandy and laudanum to relieve pain; these were entirely discontinued from the time of the operation, as all pain ceased from that time. He has been several times seen since he left the hospital, and is in good health and passing natural urine.

Mr. HOWARD MARSH read a case in which very severe symptoms were due to two small Stones in an Atrophied and Movable Kidney; failure to detect the organ by an anterior lumbar incision; discovery by laparotomy; successful removal of the kidney. The patient, aged twenty-five, unmarried, was admitted into St. Bartholomew's Hospital on June 29th, 1886, with well-marked symptoms of stone in the left kidney, constant pain, severe exacerbations, frequent micturition, and pus and blood in the urine. As no improvement followed rest and medical treatment, it was determined to explore the kidney. For this purpose an incision, suggested by Mr. Willett, and which had several times been found highly advantageous for the removal of large kidneys, situated exactly half way between the spine and the middle line in front, and vertical in direction, was made through the abdominal wall and fascia transversalis. The kidney, however, could nowhere be found though a wide search was made. On a subsequent occasion the abdomen was opened in the middle line, and the hand passed in. The kidney was now easily detected, but found to be movable and atrophied. No stone, however, could be felt. The kidney was then removed by the ordinary lumbar incision. The patient made a bad recovery. On opening the kidney after removal two small stones were found in one of the calyces. The author drew attention to the important fact that, though the symptoms were very urgent, the stones on which they depended were of very small size. He pointed out that, though the incision in the axillary line is ordinarily adopted for the removal of a large kidney, the posterior lumbar incision is preferable for the purpose either of mere exploration or the removal of a stone from the kidney; and he discussed the means that may be adopted for the detection and removal of small renal calculi. He also raised the question how far the symptoms in the present case may have been due to the fact that the kidney was freely movable.

Mr. WILLIAM H. BENNETT read a case of supposed Nephrotomy for Scrofulous Disease. The patient, a married woman, aged thirty-seven, was admitted into St. George's Hospital under the care of Dr. Champneys on Dec. 25th, 1885, on account of abdominal tenderness, painful micturition, and a reniform swelling on the left of the umbilicus, which rapidly increased, and by Jan. 8th extended into the left loin. On the 14th there was a sharp rigor, fluctuation became manifest in the mass, and a considerable amount of pus appeared in the urine, which was neutral in reaction, and up to this time had only been slightly turbid. Exhausting vomiting set in, and the case was transferred to Mr. Bennett's care, who, on Feb. 3rd, laid open the tumour freely through the left loin, whereupon a large quantity of curdy partly caseating discharge poured out, with a foul urinous odour. On the finger being introduced into the cavity it entered what was apparently a disorganised scrofulous kidney, there being a large sac with irregular imperfect septa formed, so far as could be judged, by the undestroyed calyces running in the usual direction. At the inner aspect was a pouch-like offshoot, which was thought to be the dilated ureter. Great relief followed the operation; the patient was progressing favourably in every respect; the abscess contracting rapidly until Feb. 18th, when lung compli-

cations set in, of which she died on the 28th. Post-mortem examination: There was a small wound in the left loin leading into a sacculated abscess of small size, at the inner and anterior part of which lay the kidney *absolutely intact*, not having been involved in the operation at all. The organ, on being cut open, was found in a condition of scrofulous disease, but had not broken down to any extent. Difficult as may be the differential diagnosis of renal and peri-renal abscess, Mr. Bennett was unacquainted with any case in which doubt had arisen, after free incision, as to the situation of the disease. In his case, so exactly in every way did the cavity resemble the interior of the kidney at the time of operation, that no surgeon could have doubted that the kidney had been laid open. Had the patient survived, as she might have done but for the occurrence of lung disease, the abscess would certainly have healed, and the case probably have been recorded as a successful instance of nephrotomy for scrofulous disease. As it seemed not impossible that similar sacculated abscesses may have been opened by other surgeons under the impression that the kidney had been incised, Mr. Bennett thought the case not without interest in connexion with the statistics of the result of treatment of scrofulous kidney by incision.

The following living specimens were shown:—Mr. R. J. Godlee: Removal of both Upper Jaws for Epithelioma of Hard Palate. Mr. R. W. Parker: An Unusual Form of Hare-lip. Mr. J. R. Lunn: (1) A boy with Ichthyosis; (2) Peculiar Deformity of Feet in an Ataxic Patient; (3) A man with Raynaud's Disease of the Feet; (4) A case of Myxœdema with want of Development of the Genital Organs.

Mr. HENRY MORRIS exhibited four Renal Calculi and cases illustrative of successful Nephro-lithotomy.

OPHTHALMOLOGICAL SOCIETY.

Treatment of Conical Cornea.—Calcareous Film of Cornea. —Choroidal Hæmorrhage.—Exostoses of Skull, with Atrophy of Optic Nerves.—Unusual Clinical Cases.—Acute Cerebral Disease, with Ocular symptoms.

AN ordinary meeting of this Society was held on the 27th ult., Mr. E. Nettleship, F.R.C.S., Vice-President, in the chair.

Mr. COWELL showed three patients with Conical Cornea treated by transverse incision, which he preferred to vertical incision. Text-books averred that conical cornea was commonest in women; but his experience was different. Two of his patients had asked that the second eye might be operated upon, they were so gratified with the results.—Dr. BRAILEY thought women were more commonly affected. He preferred a vertical section, but had of late simply made a vertical groove in the cornea and then stitched the edges of the groove together.—Mr. HIGGENS said that women were most frequently affected, and hypermetropic eyes were more prone to it than others. After operation a convex glass greatly improved the sight.—Mr. MCHARDY had seen it only in very young men. He preferred trephining to removing an elliptical flap; but the latter was attended with less pain and retention of aqueous fluid. The horizontal was better than the vertical section.—Mr. ANDERSON CRITCHETT observed that anterior synechia was noted in 50 per cent. of the cases operated on, and iridectomy was necessitated. He began with a minute vertical iridectomy, and ten days later another iridectomy outwards, and afterwards an elliptical portion of the cornea was removed.—Mr. LANG thought the incision should be wider than the size of the pupil, and so adhesion of cornea and iris could be avoided. He cut out a short, nearly circular ellipse.—Mr. HARTLEY concurred with Mr. Lang, and was struck with the apparent length of the scar in the cases exhibited.—Mr. COWELL claimed no originality for the vertical method, but thought it had fewer inconveniences than others. He would not employ a suture, for it set up irritation. The two surfaces of the cut cornea adapted themselves better if the incision were long.

Mr. MARCUS GUNN showed a living specimen of Transverse Calcareous Film of both Corneæ. The left eye had defective vision, and originally squinted. The chief features of interest were the causation and treatment. The man was a blacksmith, and had been exposed to blasts of cold air as well as to great heat. The vision in the right eye was still fairly good. Mr. Gunn proposed to scrape away the calcareous matter. There had been no keratitis or iritis There was no family history of gout or rheumatism. The film reached to the extreme inner edge of the cornea, but did not slope. In these two features it differed from those shown by Mr. Nettleship.

Mr. W. H. JESSOP read the sequel to the case of Large Semicircular Hæmorrhage. The eye has recovered with perfect vision, and without a scotoma. He concluded that the extravasation had probably occurred into the nerve-fibre layer.—Mr. QUARRY SILCOCK said that the case of large hæmorrhage shown by him at the last meeting had resulted in a white patch of choroidal atrophy, which therefore justified his calling the case choroidal rather than retinal hæmorrhage.

Mr. W. LANG showed a case of Central Detachment of Retina of obscure origin in a widow aged sixty-three, a semptress.

Mr. E. NETTLESHIP showed a living specimen of Congenital Multiple Symmetrical Exostoses of Skull, with Post-papillitic Partial Atrophy of Optic Nerves. The boy, aged twelve, was much undergrown, but fairly healthy and intelligent. There were very large and perfectly symmetrical smooth exostoses in the temporal and mastoid regions and on the outer wall of each orbit, laterally, and at or near the situation of the anterior and posterior fontanelles in the middle line. The coronal suture could be felt as a groove on the temporal and anterior median exostoses. At the sides of the root of the nose there is a gap between the nasal process of the frontal and of the superior maxillary bones, but the central ridge formed by the nasal bones is normal. Numerous large veins emerge from or pass into the gap on each side of the root of the nose; and others are seen in the temporal regions. The eyes are too wide apart, the orbits being separated apparently by expansion of the median bones. When the mouth was opened the lower jaw was dislocated forwards, but without causing inconvenience; probably the shape of the glenoid cavity is much altered. The roof of the palate is very high and narrow anteriorly; with this exception, the facial bones seem to be quite natural. The smell and hearing were good. There was no other deformity. Both the optic discs were pale, with clear evidence of former inflammation. The left showed more change than the right. Vision is defective: right, 14 J.; left, 16 J.; less than $\frac{1}{20}$ with either. The refraction was hypermetropic, 3·5 D. He could read better with the aid of + 3 D. The head was of its present shape at birth, but the bosses have become less conspicuous as he has grown. The sight has been in its present state all his life, so far as could be ascertained. There were no other cases in the family.

Mr. P. H. MULES read a paper on some Unusual Clinical Cases. 1. Pseudo-sarcoma of iris. A case of solitary gummous tumour of the iris simulating sarcoma, in a child aged thirteen months. There was no iritis or other appearance of syphilis. The growth was dispersed by mercurial inunction in seven weeks, leaving the eye normal. 2. A deep and extensive crescentic ulcer of the cornea (Wecker's malignant ulcer), with splitting of the corneal layers to the apex, permitting passage of probe (a very rare condition), occurring in a man aged fifty-four, arrested by scraping and iodoform. The case was a crucial one, and Dr. Mules pointed to it as proof of the efficacy of scraping and antiseptics. 3. A second case of corneal ulcer in a man aged fifty-six suffering from Graves's disease. The ulcer was painful, and was complicated by posterior synechia. All minor treatment failed, and the cornea being in eminent danger of destruction, the lids were united over four-fifths of their length. The pain was at once relieved, and the ulcer healed rapidly without further treatment. The interest of this case was accentuated by the record of corneal losses from Graves's disease recently published. 4. A case of double auto-extraction, the result of accident, in a man aged sixty-seven, with retention of useful vision in both eyes. 5. Extraordinary foreign body retained in globe: a dart from puff and dart encapsuled for eleven days. 6. Scleral hernia from direct violence on the front of the eye; media transparent. Papilla with an irregular margin of sclera, forced out and destroyed; central artery reduced to white lines; vein retaining its normal patency. It was believed that this was the only case in which this accident had been observed.—Mr. CRITCHETT related the case of a lady who had been shot in the eye with a dart nine months before. During the enucleation of the eye for sympathetic ophthalmitis the dart was found to have penetrated the optic nerve, and lay outside the eye in the orbit.—Mr. G. A BERRY had examined the

case of exophthalmic goitre, and the result seemed to be most satisfactory. Was it requisite to pare the edge before bringing the lids together? He had recently seen a similar case in which good results were obtained without paring the edges.—Mr. HIGGENS referred to the crescentic ulcers; they were more amenable to treatment by eserine and bandaging than by any other method of treatment.—Dr. BRAILEY thought that cases where there was no infiltration of the base of the ulcer did best with eserine; where there was infiltration, the galvano-cautery was very useful.—Mr. MARCUS GUNN said that in one case of fairly clear, greyish, serpiginous ulceration, extending half round the entire cornea, he had employed the galvano-cautery with great success.—Mr. SIMEON SNELL alluded to the value of quinine in two-grain doses three or four times a day.

Mr. G. A. BERRY read three cases of Acute Cerebral Disease with Ocular Symptoms. His first case was one of acute ophthalmoplegia externa in a little girl, aged two years and a half. There was a history of gastro-enteric catarrh five months before admission. The present illness began three weeks ago with cough and headache. Ten days before something wrong was noticed with the sight. There was almost complete ptosis of both eyes, with absolute divergence of eyeballs—in fact, a condition of almost complete ophthalmoplegia externa. The child was mentally very apathetic; once she had a severe screaming fit; the knee-jerks were absent. After treatment by iodide of potassium for two weeks, distinct improvement in the general condition began, and the ophthalmoplegia was less marked. There was a scrofulous condition of one finger. The pathology of ophthalmoplegia was reviewed. Perhaps the condition was dependent on tubercular disease about the ocular nuclei. The second case was one of megrim associated with spasm of convergence, in a girl aged eighteen. The possibility of hysteria being the cause was considered. On one occasion the patient had an attack of apparently insurmountable conjugate deviation of the eyes to the left. Extraordinary abnormalities of temperature of the body were observed. The corpora quadrigemina or the cortex might be the seat of the nervous lesion. The third case was one of recurrent attacks of bitemporal hemianopia. The patient was a man aged fifty-three, who had suffered from headache and drowsiness. Both temporal halves of the fields of vision were extremely defective up to about 5° from the points of fixation. On six occasions, at intervals of about one week, and for three or four days, vision became affected and the temporal fields of vision dimmed or obliterated, whilst at the same time the heart's action was markedly slower than during the periods of intermission of the ocular symptoms. Pressure on the chiasma in an antero-posterior direction might be the cause of the hemianopia.—Dr. GOWERS said the cases were difficult. He agreed with Dr. Berry that it was highly probable that different cases of external ophthalmoplegia had different pathological lesions, especially judging from what was known of ophthalmoplegia interna. The loss of light-reflex, usually attributed to degeneration, might pass away even in tabes. Where recovery took place, the lesion could not be a destructive one, though there might be some nutritional change. With regard to the first case, he doubted whether it could be due to distension of the aqueduct or to a simple tubercular lesion. Distension of the aqueduct was frequently met with without paralysis of ocular muscles. Sudden lesions were generally vascular. Thrombosis was common in children; in this case it was probable that a thrombus had occurred in the artery leading to the ocular centre. In the second case, he agreed that the case was not one of hysteria. Divergent strabismus was conclusive against hysteria. As to the third case, no doubt internal hydrocephalus was an occasional cause of pressure on the chiasma, and blindness. He referred to a case where first the decussating and afterwards the non-decussating fibres were affected by the distension of the third ventricle.—Mr. WARREN TAY referred to a case of Mr. Hutchinson's, which recovered.—Dr. SEYMOUR SHARKEY did not accept the tubercular theory of the first case. Many acute cases resembled tubercular disease and got well, but there was not any reliable evidence of recovery after tubercular disease of the brain. He had discovered diffuse inflammation of the basal ganglia when the cerebral symptoms had begun suddenly. He would regard the present case as one of this kind rather than as of thrombotic origin.—Mr. BERRY, in reply, considered that some vascular lesion was most probable in the first case. He had observed one case of external ophthalmoplegia, evidently of inflammatory origin. Spasm of convergence, so far as he knew, was rare; paralysis more common.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

AT the ordinary meeting held on Jan. 14th, Mr. Wheelhouse in the chair, the following pathological specimens were shown:—Mr. Lawford Knaggs: Carcinomatous Ulcer of Pylorus. Mr. C. J. Wright: Pedunculated Fibroma of Labium—a large mushroom-shaped tumour ulcerated on the surface. Mr. Mayo Robson: Diseased Uterine Appendages—viz., tube occluded by caseous matter; distended tube with parovarian and small ovarian cyst.

A drawing of Lichen Circumscriptus was shown by Dr. Barrs of a case in which the eruption was produced by wearing flannel.

Mr. McGill exhibited a specimen of a large Cyst near the larynx, removed post mortem.

The following communications were made:—

On the persistence of Palsy in limited groups of Muscles. Dr. CLIFFORD ALLBUTT pointed out the frequency with which this occurred both in cerebral and spinal paralyses, and he held that the theory that it depended on the particular group of cells affected by the lesion was untenable, at all events in cerebral cases. Considering the muscular actions to be carried on by groups of mechanisms, he thought the will acted with diminished power and therefore imperfect control, resulting in the overaction of stronger muscles and consequent spasm through want of their proper antagonisers. This local disorder was to be treated by local means, and he recommended the use of elastic bands to assist in counteracting the spasm of stronger muscles, and spoke highly of the use of tenotomy, which should be done early, before any dislocation &c. could take place.—Mr. WHEELHOUSE said that he and his surgical colleagues had been led to make a very extensive use of tenotomy in the treatment of infantile palsies through the representations of a very skilful surgical mechanician, and had been much surprised at the results obtained.—Dr. MAJOR thought that in polio-myelitis anterior there could be no doubt, from the wasting and altered electric relations of the muscles, that the lesion did pick out certain groups of cells and leave others.—Dr. EDDISON agreed with previous speakers in the benefit to be obtained from surgical treatment.—Dr. CHADWICK thought that stretching the unopposed muscles by means of a splint was more reasonable than cutting their tendons.—Dr. CHURTON thought that in the gradual evolution of the nervous system the later formed parts might be more delicate than the older, and therefore lesions produced different effects; but tenotomy relieved the muscle by removing the irritation of its opponents.—Dr. GRIFFITH thought the same theory could not account for central and peripheral palsies. In lead-palsy there was very little spasm, and he thought deformity arose from the long continuance of the parts in a position like that seen in the cadaver.—Dr. ALLAN had seen excellent results from the use of elastic bands in the practice of Mr. Chauncy Puzey of Liverpool.

Pernicious Anæmia.—Mr. BATES described a fatal case in a patient aged forty-nine. The principal symptoms were shortness of breath, attacks of vomiting, and diarrhœa; there was also an attack of jaundice. At the necropsy the liver was slightly fatty, and the stomach walls were very thin, but had not yet been microscopically examined. Death took place after twenty-four hours' unconsciousness. Another case of the same kind was described, in which also there had been jaundice before death. The stomach was very thin.—Dr. BLACK recommended the use of alteratives in the treatment of anæmia.—Dr. ALLBUTT referred to the definite appearance of pernicious anæmia, as accompanied by extravasations into the retina, and in the curable cases remedied by arsenic rather than iron.—Mr. JESSOP spoke of three patients he had seen, all of whom lived in houses much exposed to sewer air.—Dr. EDDISON doubted the advantage of the term "pernicious." He thought many cases so called were due to ague or syphilis. In all cases he had seen the blood-cells were distorted.

Primary Nerve Suture.—Mr. ROWE described a case where the ulnar nerve and artery were both divided. After securing the artery he joined the cut end of the nerve (the proximal

being much retracted) with a carbolised catgut suture passed through the nerve. Two days after the operation the numbness was less. In five days and a half the sensation was the same, but there was some slight movement in the muscle. In thirty days sensation was slightly impaired, and motion was definite, but not perfect. Shortly afterwards the man pursued his occupation. Mr. Rowe referred to cases by Favel, Nélaton, and others; in some sensation partly returned at the end of the second day, recovery taking place at the end of a week. In a case of primary nerve suture reported by Laugier, recovery began on the day of operation. In Page's cases it occurred in nine days; in Pye's cases, in eight days; but there were some errors of localisation in the former. Mr. Rowe compared the rapid restitution of function in primary suture with the later development noticed in cases of secondary suture, referring specially to a case where the sciatic nerve was sutured by Mr. Wheelhouse, perfect function being only restored after several months.—Mr. WHEELHOUSE said that nerve suture was now established as a satisfactory operation, whether primary or secondary; but in one case by the latter he had known the effect delayed for three months. Referring to a case mentioned by Mr. Hartley where a painful tumour formed over the seat of suture of the median nerve, he said that probably some part of the nerve had failed to unite and had become bulbous, and he recommended a fresh operation to remove this.—Mr. JESSOP thought we should in future, in large wounds, fix more divided parts in apposition by sutures than has been the custom. One of the first cases of nerve suture on record was one where he had sutured the ulnar twelve years after division, first removing a bulbous end. On the seventh day the patient could localise a touch.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

AT the meeting on Dec. 23rd, 1886, the following communications were made:—

Malignant Disease of Pancreas and Liver.—Dr. DYSON related this case. The patient, aged forty-nine, was previously under his care for left pleural effusion, for which he was tapped, and he made a good recovery. His colour was suggestive of Addison's disease, and there was a history of alcoholism. The patient applied at the Sheffield Infirmary for relief because the tumour, which was situated in the epigastrium and which was somewhat movable, interfered with his work. The most noteworthy fact in the case was the complete absence of pain and digestive troubles until within a month of his death. During the last month, pain, vomiting, obstruction of bowel, hæmorrhage, and pyrexia supervened, and the patient died of exhaustion. At the necropsy the pancreas was found almost entirely invaded by scirrhus; the neighbouring glands were affected, and there were numerous secondary deposits in the liver, one especially large one in the left lobe. No other deposits. Left pleura adherent.

Tremor and Incipient Graves' Disease.—Dr. DYSON introduced this patient, an iron-turner, aged thirty-six. The tremors were fine and generally distributed, and probably due to chronic alcoholism. Cardio-vascular symptoms were the first to appear, and slight exophthalmos and Graefe's lid symptom came on quite recently. Pulse 150. He had also a slight internal squint and dilatation of the pupil of the left eye; no glycosuria. Many drugs had been tried for his relief, but none so far was obtained.

Some Clinical Features of Graves' Disease.—Mr. SNELL read this paper, based on cases coming under his observation. Referring to those in which the eye symptoms were the first to appear, he mentioned the case of a young woman, in whom the other cardinal symptoms had recently developed, and the patient was introduced by Dr. Dyson, under whose care she was now; also that of a woman, aged forty-five (introduced), with Graefe's and Stellwag's symptoms in right eye; no marked (if any) exophthalmos; slightly enlarged thyroid, and unobserved by patient; absence of other symptoms; left eye normal. Two monocular cases in females were related, besides the one above, as were also two instances of suppuration of both cornea; the cases coming under observation first when the cornea was seriously affected in one (aged twenty-three), and destroyed in the other (aged forty). The question of Stellwag's (retraction of eyelids) and Graefe's (loss of coördinated movement of upper eyelid and globe on looking down) signs occurring independently of the usual train of symptoms of Graves' disease was discussed, and the following two cases in particular were related:—A young lady, with Graefe's and Stellwag's symptoms in one eye (right); no other apparent symptoms of exophthalmic goitre; greatly improved under treatment. A miner, aged thirty-six (introduced), the subject of miner's nystagmus. In both eyes Stellwag's and Graefe's signs were present; no exophthalmos, enlarged thyroid, or other symptoms of Graves' disease. The man seemed to possess some control over the lid phenomena. Among other points, the pathology was briefly touched upon, and support given by the cases related to a central disease theory (Sattler, Fitzgerald).

WIGAN MEDICAL SOCIETY.

Attendance of Medical Witnesses at Assize Courts.—A special meeting of the Society was held on Jan. 27th, Dr. Berry, J.P., President, in the chair, for the purpose of considering the present procedure in binding over medical witnesses to attend at assize and sessions courts, and the inadequate fees paid for the great loss of time involved. After some discussion upon the hardships entailed upon medical men by being compelled to attend as witnesses for a number of days at these courts, held in Liverpool, before their particular case is disposed of, and attention having been called to the fact that the scale of fees (namely, one guinea per day) was fixed thirty years ago by the then Lord Chancellor, when that sum was of much more value than at present, and there was not the same facilities for the saving of public time, the following resolutions were unanimously adopted:—1. "That it is most desirable that some alteration be made in the present procedure of detaining medical men as witnesses for a number of days at assize and sessions courts, and that adequate remuneration be allowed them for the loss of their time." 2. "That a subcommittee, comprising the president, vice-president, secretary, Messrs. Barnish and Brady, be appointed to consult counsel, and take the necessary steps towards calling the attention of the Crown to this grievance." 3. "That a report of the proceedings of this meeting be sent to the medical journals for publication."

Reviews and Notices of Books.

The Healing of Arteries after Ligature in Man and Animals. By J. COLLIS WARREN, M.D., Assistant Professor of Surgery, Harvard University; Surgeon to the Massachusetts General Hospital, &c. New York: William Wood and Co. 1886.

THERE is probably no theme in Surgery which has commanded a greater amount of interest and attention than the arrest of arterial hæmorrhage. The importance of the process is its just claim to attention, and this is for us greatly strengthened by the history of its gradual development, and the great names that are inseparably connected with the chief steps in the advance of our knowledge and in the improvement in our practice upon arteries. In spite of all that has been done there are many points yet open to discussion. It is still debated whether a ligature should be flat or round, large or small, permanent or temporary, single or double; and whether it should be applied tightly so as to partially sever the vessel, or more loosely so as only to compress it more or less firmly. For some years past Dr. Collis Warren of Boston has been studying with much care the minute processes occurring in the healing of ligatured arteries, and he has embodied his results in a valuable treatise. Dr. Warren has, of course, availed himself of the aid afforded by direct experiment on animals, and the series of vessels thus obtained, together with several human arteries removed at varying times after ligature, have formed materials from which he has been able to trace the entire process of healing. In removing the artery experimented upon, he has been careful not to dissect it away from the

body of lymph or "callus" in which it lay, but to remove the mass entire. By examining sections of specimens thus preserved the entire process can be followed far better than when the vessel is dissected out and examined alone.

In many points Dr. Warren confirms the statements of other observers, but several of his facts are so striking that they are certain to excite fresh inquiry. The relative *rôles* of the internal coagulum of Petit and of the various coats of the arteries have afforded much matter for discussion. Dr. Warren attributes to the internal clot a very subsidiary share in the cicatrisation of the vessel. Like others, he finds that the size of this clot is much affected by efficient antiseptic treatment; he does not believe that it plays any active part in the closure of the vessels, but that it forms a very suitable soil for the development of granulation tissue sprouting into it from the neighbourhood of the ligature. The part played by the tunica intima has been variously estimated. Dr. Warren finds that both in animals and in man the endothelium of an artery takes but a small share in the work of cicatrisation. In some specimens it was seen to be undergoing proliferation, and by this means to affix the internal clot to the vessel wall; this may not be seen at the seat of the ligature, but at the other extremity of the clot. The endothelium also proliferates to form a lining for the vascular spaces in the arterial cicatrix; beyond this it does not take any active share in the closure of the vessel, if Dr. Warren's experiments and statements are to be relied on. The tunica media appears to play a very important part, for it is found that a main and essential part of the cicatrix in an artery is composed of long oval cells with rod-shaped nuclei, which are derived from the middle coat, and are to be regarded as involuntary muscular-fibre cells. These cells shoot into the organising tissue wherever the elastic lamina of the intima is broken through, whether at the seat of ligature or at some distance from it. Outside this muscular layer of the cicatrix is a fibrous layer by which it is continuous with the tunica adventitia and the scar tissue in the sheath of the vessel. The fully developed scar of a ligatured artery is therefore seen to be formed of three distinct layers: an innermost, derived from the intima, and consisting of endothelial cells with and without newly formed elastic lamina; a thick central mass consisting of delicate mucous tissue and capillaries, with muscle-fibre cells; and an outer layer of dense fibrillated tissue. Among the many interesting facts observed in this inquiry is the opening out of the artery a short time after its ligature. At first the inner and middle coats are severed and the outer coat is strangled and the lumen of the vessel is completely obliterated. This is quickly followed by the formation of a callus of exudation material around the vessel; the outer coat is then disintegrated at the seat of ligature; this allows of its opening out and of its retraction, and through the aperture thus formed granulation tissue sprouts into the interior of the vessel from the surrounding callus. This process is very clearly seen in several of the diagrams which illustrate Dr. Warren's book, and which have all the appearances of faithful representations of facts. This growth of granulation tissue invades the internal coagulum, and within it blood spaces are formed which communicate with the lumen of the vessel. The muscular-fibre cells sprout out into the granulation tissue, and may sometimes be specially traced around the anastomosing blood channels. The time required for the formation of a complete cicatrix in a large artery is at least from three to six months. Dr. Warren has investigated the changes occurring in arteries in stumps, and the processes leading to the obliteration of the ductus arteriosus and the hypogastric artery. In these he finds corroboration of the above facts. Altogether this book is the record of a very valuable piece of work, and deserves to be carefully studied.

Hygiene of the Eye in Schools. By HERMANN COHN, Professor of Ophthalmic Science in Breslau. English Translation. Edited by W. P. TURNBULL. London: Simpkin, Marshall, and Co.; and the Midland Educational Company, Limited.

THIS is a much-needed work, and one that should be in the hands, not only of every surgeon, but of all those who have the care of children—schoolmasters and mistresses, and tutors of all grades and classes, from the heads of our great public schools and colleges to the humblest National school teachers. The work is founded on an article in Eulenberg's Real-Encyclopedie, but the author has added a short and popular introductory chapter on the Anatomy of the Eye, as well as a few remarks on its physiology and pathology. The chapter is of course correctly and simply written, but a doubt may be expressed whether any ordinary layman could, in the absence of special education and dissection, follow the account of the eye and its defects here given. Something, however, will be done if Prof. Cohn can explode some antiquated notions which are very generally accepted—as, for example, the erroneous idea that a short-sighted eye is a good eye, and improves with age. Prof. Cohn very properly maintains without hesitation that a short-sighted eye is a diseased eye, and still more that progressive short sight is in every case ominous of evil for the future, so that not unfrequently at the age of fifty or sixty, if not much earlier, the power of sight, either from detachment of the retina, or from hæmorrhage, or, lastly, from atrophy and degeneration of the yellow spot, is irrecoverably lost. All ophthalmic surgeons will, we are convinced, agree with Professor Cohn in thinking that one of the main causes, if not the only one, is the continual looking at near objects, especially with insufficient illumination. The influence of this unfavourable condition is of course greatly intensified by insufficient food and other lowering causes. Professor Cohn is well known to have been amongst the first to publish statistics in regard to the development of myopia in schools; and his table of results obtained from the examination of 10,060 children has been often quoted. They show that in every school the number of short-sighted children increases from class to class, and that the average degree of myopia rises constantly from the village schools to the gymnasia. The eleventh chapter is devoted to School Desks, and opens with a graphic account by Fahrner of the position and movements of children under ordinary circumstances in writing, and shows clearly the effect of the form and height of the desk, and the position of the slate or copy-book in producing "round" or "skewed" backs; and careful descriptions are given of the proper form, height, slope, and back-rest of model school desks and school seats, in regard to which many points are noted that we venture to say have never crossed the minds of nine-tenths of the teachers in English schools. Prof. Cohn quotes with approval the remarks which have been drawn up by Prof. Esmarch of Kiel, and distributed to parents whose children were crooked. This report says: "School children become crooked and short-sighted by crooked sitting on bad school forms. They sit crooked when the form is too far off the desk, is too low for the desk, and has no back-rest." The proper form is then described, and it is noted that a readjustment of the seat and the desk should be made every six months to meet the requirements of growing children. Another very important chapter is devoted to the Day-lighting of schoolrooms. How many schoolrooms in the country are dark and dingy, dirty in their interior, with small windows, with bad ventilation, and with the desks all placed in a faulty position in regard to the little light that enters. Von Hoffmann of Wiesbaden has recently made the excellent suggestion that in every class-room Snellen's test-types should be hung up, and lessons ended as soon as the day-light is not strong enough to allow a healthy eye to read type No. 6

at a distance of six inches. The author expresses himself in the strongest terms in regard to the amount of light admitted into a school-room: "There can never be too much light in a school." Javal says, "The school must be flooded with light, so that the darkest place in the class may have light enough on a dark day." Prof. Cohn maintains that for every square foot of floor there should be at least thirty square inches of glass. The light should be admitted from the left of the scholars, and of course there should be no high buildings in close proximity to the school to intercept the light. The distance of the opposite buildings should be twice their height. From natural illumination the transition is easy to artificial illumination of schools. The author prefers gas, then petroleum, then oil; the relative illuminating power of these substances being—gas 100, petroleum 87, oil 63. The work concludes with admirable chapters on handwriting, drawing, print, and paper. We have said enough to show that this is a valuable book, and one that should be widely read. The present arrangements in the schools of England are simply disgraceful. We have only praise to accord to Mr. Turnbull for his very well executed translation.

Minutes of the General Medical Council, of its Executive and Dental Committees, and of its Branch Councils, for the Year 1886. With four Appendices. Vol. 23. London: Spottiswoode and Co.

THIS volume has now been issued, and includes a full report of the transactions of the Council and its committees, together with four valuable appendices. The first contains the Standing Orders of the General Council; the second, Visitation Reports on the Universities of Oxford, Cambridge, Durham, London, Edinburgh, Glasgow, Aberdeen, St. Andrews, Dublin, and the Royal University of Ireland. The third and fourth appendices contain respectively the second and third reports by the Statistical Committee of the General Medical Council regarding medical students registered as beginning the study of the profession in the quinquennium 1871-1875.

THE MOXON MEMORIAL.

A MEETING of the friends of the late Dr. Walter Moxon was held in the Royal College of Physicians on the 1st inst., to consider the question of perpetuating his memory by some suitable memorial. Sir William Jenner took the chair at 5 o'clock, and was supported by the treasurer and registrar (Sir Dyce Duckworth and Sir Henry Pitman). Letters were received from Sir A. Clark, Sir J. Lister, and Dr. Wilson Fox, expressing their regret at being unable to attend.

Sir WILLIAM JENNER opened the proceedings by explaining, in a few remarks, that the object of the meeting was to raise some visible sign which should be a lasting memorial of one now passed away, who was honoured for his scientific and professional work, esteemed for his zeal, and universally respected for his high and unsullied character as a man.

Dr. WILKS moved the first resolution, as follows: "That in the opinion of this meeting it is desirable to express, by public memorial, the widespread appreciation which exists of the high character and remarkable personal qualities of the late Dr. Moxon, and especially of the services he rendered in advancing medical science, and in otherwise promoting the highest interests of the profession." He said that as he grew older he was conscious of the ranks of the profession growing thinner around, and it remained for the few to hand down the names of those who had gone before. It was difficult for him to speak of Dr. Moxon, whom he had known as a pupil; but all who had met him were ready to admit that Moxon was no ordinary man. He was a burning and shining light that dazzled men by his brilliancy, so that his companions often ceased to converse and preferred to listen. He threw a halo round every subject he touched. Succeeding the speaker in the chair of Pathology, he soon mastered every detail in that science. Then passing to the chair of Materia Medica, he at once threw a new interest around a very unattractive subject. He was able to strike sparks out of rhubarb and senna leaves. In practice, he endeared himself both by his manner and acumen, and in treating patients his wit was constantly seen. Only the other day he heard of a story of a hypochondriac clergyman who had consulted Moxon. When the patient returned home his wife wanted to know what the doctor called his complaint. On this point the patient was a little doubtful, so it was determined to send his son down to inquire. When the son arrived Dr. Moxon said he could not remember the particular case, but if the son chose to look in his note-book he might there see for himself Moxon's candid opinion. The son looked, and found "a lanky parson with nothing the matter." The diagnosis was taken home and cured the patient. Moxon took pains in everything he did. At the College of Physicians his influence was soon felt, and he made strong friends. How gratifying it was to the friends and relatives to see the esteemed President at his grave, as a mark of respect to his memory, the speaker well knew. Two things they had to commemorate—Moxon's great genius and high scientific contributions to medicine, and his great personal worth, his pure heart, upright conduct, and general integrity. Many illustrious men died without evoking this feeling.

Sir JAMES PAGET, in seconding the resolution, said that Dr. Wilks had left little for him to say, who knew personally so much less of Dr. Moxon, for he had never seen Dr. Moxon at his work at Guy's Hospital; but this slighter acquaintance made the impression he had formed of him perhaps the more remarkable. He knew him only by repute, by his work, and by occasionally meeting him at societies or in consultation; but it was impossible to know him in that way without being impressed by his mental and moral worth. His mind was of a kind which gave free play to imagination, yet went on progressing towards the truth. To him it seemed at first strange and difficult to understand how this should be so, till he learnt that there was always present a most perfect appreciation of facts. At a consultation the beginning was illuminated, but the end was full of the most practical decisions for the patient's good. In society the charm of his wit was most fascinating. In the profession there never was a question but that what he intended to do was always the best according to what he conceived to be right. It was right that such good work should be recorded, and that a memorial should be raised which generations after would respect.

Dr. PAVY moved the second resolution, to the effect that subscriptions should be invited, and that an influential subcommittee be appointed to decide on the most suitable form of memorial. He spoke of the satisfaction it was to him to pay respect to one he had known as a pupil, colleague, and friend, and expressed a hope that part of the memorial fund should be devoted to perpetuating Dr. Moxon's memory at Guy's Hospital.

Sir DYCE DUCKWORTH seconded the resolution, and said that he had known the late Dr. Moxon for twenty-five years, and had often visited him when at work at Guy's. He had the highest appreciation of his character and work. He thought the memorial might be divided between Guy's and the College of Physicians, and hoped that it would be something worthy both of Dr. Moxon, of Guy's, and of the College.

Dr. BRAXTON HICKS and Mr. SIDNEY TURNER proposed that Mr. R. C. Lucas be treasurer, and Dr. G. N. Pitt and Mr. W. A. Lane secretaries to the fund.

The Treasurer of Guy's Hospital proposed a vote of thanks to the President for presiding, and to the Council for the use of the College, which Mr. DURHAM seconded, and to which Sir WILLIAM JENNER briefly replied.

HUNTERIAN SOCIETY.—The annual meeting of this Society will be held on Wednesday, the 9th inst., at 8 P.M., when the oration will be delivered by Dr. Galabin in the theatre of the London Institution, Finsbury-circus. The following is a list of office-bearers for the ensuing year:—President: Dr. Gervis. Vice-Presidents: Dr. Talbot King, Mr. T. R. Fendick, Mr. G. E. Herman, and Mr. G. J. B. Stevens. Treasurer: Dr. Fotherby. Orator: Mr. Clement Lucas. Secretaries: Dr. Charlewood Turner and Mr. John Poland. Council: Messrs. T. E. Bowkett, F. M. Corner, J. S. E. Cotman, G. B. Hicks, T. Mark Hovell, W. Rivington, K. G. Tatham, C. J. Symonds; and Drs. E. G. Gilbert, P. Horrocks, Pye-Smith, and Stephen Mackenzie.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 5, 1887.

WE understand that the promoters of a Teaching University in London are waiting on the Senate of the University of London for an official answer to their representations on the necessity for, and the functions of, a real University in London. In all past discussions on the threefold subject of the University of London in relation to medical degrees, the formation of a Teaching University in London, and degrees for average London medical students, we have not had the advantage of any definite statement from the authorities of the existing University of the policy which they were inclined to pursue, but have been obliged to be content with such side-lights as the present Vice-Chancellor has thrown thereon in his speeches at the last presentation of degrees and honours and at Manchester in November. From these speeches we have learned that the "pass" degrees are considered by the Senate to constitute "distinct honours," and that every successful candidate has an evidence "that he has passed no ordinary standard." We can now go a step further, for we are practically informed, in an article in the current number of the *Quarterly Review*, that the University relies on its past history. For instance, in medicine it is prominently put forward that "the University has probably influenced the profession profoundly and beneficially by confining its distinctions to the *élite* of medical students, and by setting up a high ideal of professional qualification." The author of the article writes as if he were in full knowledge of the views of the Senate, and he has perceptibly striven to justify its present position in—we will not say a complete *non possumus*, but in admitting only minor internal alterations in the character, management, and functions of the University. He also believes that it is in medicine that the University influence has been most powerfully felt and conspicuously successful, so that we must point out a few considerations on the other side of the question. We shall more particularly refer to the medical aspect of the question in our next issue, and will now confine our remarks more especially to the general question of degrees in all faculties.

The fundamental objection to the University of London is in its title. As the author truly says, "In the sense in which Oxford, Glasgow, or Bonn possesses a University—an organised body of teachers confederated for the purpose of attracting scholars, guiding their studies, and encouraging learning by appropriate rewards—London still remains without a local university worthy of its metropolitan position, its population, and its intellectual repute." The chief reason for the continuance of this reproach in the nineteenth century is the usurpation of the title "University of London" by a huge examining board in the metropolis of the empire. From its existence and from its having the power of conferring degrees of Bachelor and Doctor (*Lond.*), the public has been induced to believe that a body which has something to do with teaching as in other universities, and with definite collegiate attachments, really exists in this metropolis as in other centres of learning. This delusion has been strengthened and confirmed by the requirement of certificates of attendance on systematic lectures and hospital practice from medical graduates, although in the other faculties all such restrictions have long been cast aside. Its success as a medical university, even if this were to be admitted, only the more completely proves its failure in regard to the other faculties. Certificates of collegiate education are either valuable or useless. But the University requires them in one faculty and will have nothing to do with them in the others. So we are not any nearer now to a real University than in 1615, and we have to thank the University authorities for not assisting in bringing us any nearer to the ideal placed before us in the Appendix to STOWE'S "Annales" of that date.

The present University from its commencement has thrown cold water on the amalgamation of London colleges and schools, and in 1858 deliberately affirmed that, except in medical training, a collegiate education was unimportant to it, and availed nothing. Therefore it is not to be wondered at that the institutions which have since replaced "the divinity schools at St. Paul's, at Westminster, and at St. Peter's in Cornhill, the King's College in Chelsea, the Inns of Court and of Chancery, Doctors' Commons, the College of Physicians, St. Katherine's College, the College of Heralds, and St. Paul's School," are now no closer in affiliation and corporate union than were these places of learning in 1615. King's College and University College, the Science and Art schools, the Technical Institute of the City and Guilds of London, the Medical Schools, the Colleges of Physicians and Surgeons, the Incorporated Law Society, and the Inns of Court and the large public schools of London are as isolated, so far as the University of London is concerned, in this the jubilee year of its existence as were the bodies above mentioned, when a University of London only existed in the imagination of a few worthy scholars and teachers. The only reasons for this failure in duty on the part of the London University are that this work was not ambitious enough for its early promoters, and that it was pledged by its Charter to encourage many persons who pursue a "regular and liberal course of education both in the United Kingdom and elsewhere." Its first proof of encouraging a regular and liberal course of education was to admit, under pressure of Lord BROUGHAM (*teste* p. 45), unworthy certificates of studentship, and so, instead of rigorously demanding sufficient proofs of regular courses of study, it gradually drifted into the acceptance of more and more loosely given certificates, until they became no guarantees even of an honest, much less of a regular, curriculum of study. It is impossible to believe that the then Senate, had it been so minded, could not have overcome this difficulty. From such a passive position towards the affiliated colleges an open examination allowed a speedy retreat, but even then the authorities shrank from the logical carrying out of their views, and insisted on certificates from candidates in medicine being still forthcoming. The medical schools were in quite as eager competition for

students as the affiliated schools and colleges in the Arts Faculty.

The writer of the article above referred to most clearly indicates that he has no sympathy with any modifications which would change the cosmopolitan character (examining only) of the present institution into a metropolitan institution, having relations exclusively to London students, to London academical organisation, and to London teachers, and whilst gravely suggesting that the title of "university" now only means a "*studium generale*, a *schola*, a gymnasium, a corporate body and buildings dedicated to the pursuit of the higher learning," still uses it throughout in its older sense as perfectly applicable to the Imperial Examining Board in Burlington-gardens. What has this body to do with the *pursuit* of the higher learning? We should say, less than many of our first-grade schools, medical and scientific colleges, and yet the most perfect satisfaction is expressed with things as they are, and the whole article is as optimistic as even an official explanation could be expected to be. We have thought it expedient to comment on this past history in order that our readers may be fully aware that since 1858 the University of London has deliberately placed itself in the anomalous position of being only an "examining board" for the empire, and that as a result of such action it is only right and proper in the interests of local London that a true University should, if possible, be founded.

THE discussion which was raised at the Medical and Chirurgical Society on Tuesday week by Mr. BARWELL dealt with a matter of considerable surgical interest—the best method of dealing with hydatid tumours of the liver. The opinions elicited showed that the line of practice is not settled, and it may be well to consider some of the points involved.

One point to which only scant reference was made in the discussion, but which has important surgical bearings, is the great diversity met with in hydatid tumours of the liver. They may be single or multiple, superficial or deep, barren or fruitful; and if multiple, they may be closely grouped together or distinctly separated. These differences have great practical importance. A single superficial cyst may be readily dealt with by simple means, such as tapping. When a number of cysts are present, they may be so grouped together that when the most superficial are opened the others may be opened from their interior; but, on the other hand, they may be so situated that this is impossible, and a deeply seated inaccessible cyst may thus set up mischief, and cause the death of the patient, as in a case alluded to by Mr. WARRINGTON HAWARD. Fortunately these complicated cases are not common; in the majority of instances the tumours are favourably placed for operative interference. The simplest surgical means is tapping the tumour and removing some or all of its fluid contents. But it was pointed out at the meeting that this operation, simple and apparently safe as it is, is not absolutely free from danger, for sudden death has more than once occurred, which in one case at least was found to be due to the entrance of a small cyst into a hepatic vein through which it passed to the heart. There is, further, the possibility of the leaking of some of the contents into the peritoneal cavity, and a fact incidentally mentioned by Mr. PEARCE GOULD is of interest from this point of view. He stated that while operating upon a case of very large suppurating hydatid, a quantity of omentum was suddenly forced out of the wound, and it was seen to be thickly studded with aborted hydatid cysts. This patient had been previously tapped on two occasions, and the question naturally arises whether the condition of the omentum was caused by an escape of hydatids from the parent cyst. On the other hand, however, it must be borne in mind that these accidents have occurred in a *very* small minority of cases, that tapping has frequently wrought a cure, and that sometimes it is used for diagnostic as well as for therapeutic purposes. If tapping is employed, how much fluid should be removed? Should the sac be emptied, or should only a small proportion of the fluid be withdrawn? On this point two opposite opinions are held, and clear and definite views are needed. The question turns upon the *modus operandi* of the operation. Is it that it causes the ectocyst to collapse away from the adventitious capsule, or is it that the withdrawal of fluid kills the hydatid and prevents the re-secretion of the fluid? Curiously different results of tapping are obtained. In some cases the cyst that has been emptied collapses altogether, and never refills; in other cases it refills with hydatid fluid indistinguishable from that obtained at first; in others, again, the fluid becomes increasingly albuminous after each tapping; in yet others the cyst suppurates. Surely we need more light on this question. We believe that some physicians think that where the nature of the tumour is obvious, it is better at once to proceed to a more radical mode of dealing with it than to trust to tapping, and they base this opinion upon the fact that the cases which are capable of cure by tapping cannot be recognised with certainty beforehand, but that they are just those in which a free incision and drainage is easiest and safest—so safe, indeed, as not to expose the patient to any appreciable risk. They would state the matter somewhat thus: Tapping is dangerous just in those cases in which incision and drainage are necessary for the cure; incision and drainage are free from danger in those cases in which tapping succeeds; therefore, to incise and drain all cases at once, in place of trying the effects of tapping first, is not to expose the patients to any additional risk, but to preserve them from the special risks occasionally attending tapping. Without asserting that this is the correct line of reasoning and practice, we must admit that there is reason in the view, although the perfectly just conservatism of surgeons will probably dispose them still to resort to tapping in apparently suitable cases.

The particular point, however, which Mr. BARWELL dealt with in his paper was the best mode of executing the operation of incision and drainage in superficial accessible cysts. He advocates an application to this case of a well-known surgical manœuvre—operation in two stages—which has had brilliant results in gastrostomy, and has been applied to the operation of enterostomy also. The object aimed at is a laudable one—the exclusion of the contents of the cyst from the peritoneal cavity; but the argument was defective in two essential points. Mr. BARWELL did not show that this escape of contents has been a serious sequela of the operation as more usually per-

formed, nor did he show that other means which have been adopted have failed to prevent it. We by no means assert the impossibility of supplying these gaps, but their existence is very evident as the case at present stands. Other means have been employed to attain the adhesion of the cyst to the abdominal wall before incising it, such as the introduction of acupressure pins, the use of caustics, and stuffing the wound made through the abdominal parietes with lint or gauze. Of all methods, we should certainly give the preference to Mr. BARWELL'S suture; it is less painful and more precise than any other; but it is doubtful whether the disadvantage of dividing the operation into two stages is not too heavy a price to pay for the supposed advantages. After the cyst has been freely opened, we have little doubt that the wisest plan is to allow the contents to escape completely, except the mother ectocyst; and not only so, but, as far as possible, the wall of the cyst should be explored for any bulging swellings formed by neighbouring cysts: all such swellings should be tapped and drained through the first. The vessels in the adventitious cyst wall are large and varicose, and the separation of the ectocyst may be followed by serious hæmorrhage. The question of irrigation is one of less moment; where the cyst has suppurated it is probably wiser to at once remove all the pus by irrigation.

One other point worth mentioning incidentally turned up in the discussion. Mr. HAWARD mentioned a case in which an unopened suppurating cyst caused the death of the patient, setting up fever and albuminoid degeneration of viscera. Mr. PEARCE GOULD mentioned a case of a large suppurating cyst which was unattended by any fever, and gave no sign of the purulent nature of its contents. There must be some explanation of the opposite results of an apparently similar condition. Is it that in one case the pus had wandered out of the cyst proper into the pleura or some other tissue, while in the other it was securely lodged within the parasite? But this is only one of many very interesting problems suggested by hydatid disease, the chief and most unexplained of all being the mode in which the parasite gains entrance to the human body.

THE President of the Local Government Board has filled the vacancy created by the death of Sir FRANCIS BOLTON, and has appointed an engineer to occupy this important office. It is convenient therefore at this moment to review the safeguards which London possesses against injury from so fertile a source of disease as contamination of water-supplies. Under the Metropolis Water Act of 1852, Section 4, every water company is required to "effectually filter all water supplied by them within the metropolis for domestic use before the same shall pass into the pipes for its distribution, excepting any water which may be pumped from wells into a covered reservoir or aqueduct, without exposure to the atmosphere, and which shall not be afterwards mixed with unfiltered water." In order to ensure the enforcement of this provision, the Metropolis Water Act of 1871 requires that "there shall be a water examiner, being a competent and impartial person from time to time appointed by the Local Government Board, who shall from time to time, in such manner as the Local Government Board direct, examine the water supplied by any company in order to ascertain whether or not the company have complied with the requirements of Section 4 of the Metropolis Water Act, 1852, and shall from time to time report the results of his several examinations to the Local Government Board; and that Board shall send a copy of every such report to the company to which the same relates; and the company may, if they think fit, on each occasion of such examination, be represented thereat by some officer, but such officer shall not interfere in the examination." The metropolis is therefore largely dependent upon filtration and chemical analysis for its preservation against water-carried diseases. Dr. BUCHANAN, in his Annual Report for 1881, summed up the position of chemical analysis as a safeguard against injury to health by stating that the chemist can tell us of impurity and hazard, but not of purity and safety, and this conclusion will undoubtedly be supported by those who are aware of the minute quantity of specific matter which is competent to produce injury to man. The evidence of mischief is, indeed, less readily found by the chemist than by the health officer, whose duty it is to discover the cause of outbreaks of sickness amongst those who are resident in his district. In London the machinery which would bring such illness to light is of so unsatisfactory a character that no substantial reliance can be placed upon it. The absence of any system of registration of disease is itself a noteworthy disadvantage; the division of London into some thirty-nine districts is again a serious obstacle to the investigation of any diseases which might be produced by the contamination of water-supplies. It is for this reason that we had hoped that the late Sir FRANCIS BOLTON'S office might be filled by the appointment of a medical man competent to perform such duties as we have indicated.

We are fully cognisant of the importance of engineering and chemical skill being brought to bear upon the control of water-supplies, but these touch but one side of the question, and nothing short of the exercise of watchfulness over the health of water consumers can give any guarantee of safety to those who in these matters are practically powerless to help themselves. The legislation of 1852 and 1871 could not have regard to this consideration; medical knowledge has grown since those times, and would itself be largely developed by continuous investigation into the effects upon health of water under different conditions. It has been too readily assumed that sewage when introduced into running water becomes oxydised in its passage down stream; doubtless there is much dilution of the impurity by the addition of other water, but it is difficult to say at what point below the intake of impurity the water regains its wholesomeness.

The drinkers of water supplied by the Thames have much ground for anxiety at the present time; the published reports of Sir FRANCIS BOLTON raise serious question as to the propriety of continuing those supplies which are derived from the Thames at a suspicious proximity to the localities of the discharge of sewage. Certainly, no health officer would be willing to accept as a sufficient basis for confidence the fact that water has been filtered, or that chemical analysis fails to detect impurity. The issues involved are of vital importance to Londoners, and cer-

tainly those who can exercise control in this matter ought not to leave the metropolis unprotected.

AMONG the proposals for reform in regard to the rules of procedure and customs of business in the lower House of Parliament, is one which must elicit the sympathy of the medical profession without respect to the party feeling or political principles of its members. We refer to the contemplated new rule that, "unless previously adjourned," the House shall "sit till half-past twelve of the clock at night, when the Speaker shall adjourn the House without question put." The phraseology in which this proposal is embodied is not remarkable either for English or elegance, but the idea is an excellent one. Half an hour after midnight is surely late enough for the making of laws. If we may not fall back on the old adage that "it is time for all good people to be in bed," it is an hour at which those who are engaged in work supposed to require fairly clear and energetic brain-functioning may, without any fear of being thought idle, avow themselves weary, and seek reliefand recuperation in repose. How very heavy is the fine imposed by Nature upon the class of public men who not merely turn night into day, but burn the candle at both ends by rising early and late taking rest, is too well known to those upon whom devolves the task of combating the advances of mind and body weakness and of fighting off death on behalf of the victims of this inexplicably mistaken policy. In the old days when the House first formed the evil habit which has come to be one of its cherished usages, early rising was not a practice to which the class of society from which members of Parliament were then commonly taken was much addicted. The legislators of the last century, and the early part of this, acted very much on the prudential principle enunciated by the late Lord BYRON and did not get up until the sun had warmed the world. We have changed all this, but with wondrous awkwardness and fatuity. We rise betimes, but do not go to bed any—or only a very little—earlier than did our great-grandfathers. This is bad enough when the muscular and general systems only are worked excessively, and the brain is practically allowed to lie fallow, as in the case of the man about town; but it is incomparably worse when the particular organ which most needs rest in sleep, and can only get it therein, is worked at the time when it ought to be slumbering.

It has been repeatedly urged that the work done by jaded law-makers at two or three o'clock in the morning connot but be less than the best of which the same minds are physically or intellectually capable. This appeal to the self-critical consciousness of our legislators in the first instance, and to the public, their constituents, in the second place, ought to be regarded as forcible; but, as a matter of history, it has not proved in a practical sense effective. The *argumentum ad hominem* may, perhaps, have greater success. Let it, then, be distinctly understood that recent Parliaments have shown a very serious percentage of brain-mortality—or, which is much worse, mind-ruin—as the result of late sittings which have to be endured after body and brain have been already wearied, if not exhausted, by a fair day's work in a Government office, in court, or with some tiresome occupation. It may be thought that such toil as members of the House of Commons have to face is not in itself very exhausting. That is a misconception, and it may readily be accounted for, because no one who has not personally experienced the weariness of habitually sitting out long debates can ever guess how the strength of body and mind is tried by the process. The time has passed, perhaps for ever, when the business of legislation in the Lower House was mostly left to the enterprise of younger sons of noble families and squires—in short, to men who could afford to be idle except in Parliament. The Commons of to-day are for the most part busy men, wholly apart from politics; and it is, therefore, more than ever desirable—we would say necessary—that a reasonable limit shall be put on the duration of sittings of the House. The Lords do not indulge in late hours, and seldom sit after dinner, except when questions of great moment or urgency are engaging their attention. It is with the Lower House we are chiefly concerned in connexion with the subject of "overwork," and we sincerely hope the very late hour (12.30 P.M.) selected by the promoters of this reform may be accepted as the limit at which measures for the enforcement of rest become publicly and personally indispensable.

Annotations.

"Ne quid nimis."

THE MEETING OF THE ASSOCIATION OF GENERAL PRACTITIONERS.

AT the meeting lately convened by the Council of the Association of General Practitioners debated questions with which the profession is now familiar were once more considered, and the resolutions passed respecting these may, alike in tone and matter, stand as guiding precedents in future discussions of the same character. The advantage of instituting a degree obtainable by London students on terms more reasonable than those required by the University of London was well brought out in a speech by Mr. Wheelhouse, the chairman on this occasion. Another question of considerable moment was not forgotten. In supporting the claims of the Apothecaries' Society, Mr. Wheelhouse and Mr. Wickham Barnes advocated no greater concession than the conjoint Colleges might conveniently grant, or, indeed, than it is incumbent upon them in respect to the expresed wish of the great body of their constituents to allow. The services rendered to the medical professiou by the Society in the past call for some return, while to ignore its claims and the recognition afforded them by the last Medical Act can only tend to weaken the influence of the yet unborn conjoint qualification, which embodies the fairest promise which we now have of a common adequate professional status for London-trained practitioners in the future. The importance of the motion which was entrusted to Dr. Danford Thomas must be generally acknowledged. In asking for a representative voice in the government of the College of Surgeons the Members are seeking no more than their due, and it would be a graceful no less than a politic act on the part of the College of Physicians to afford recognition in a similar way to their Members and Licentiates. Personal representation as the counterpart of personal duty is the most characteristic feature of our national life. It is a principle than which none can be fairer. It is native and inevitable to every constitution composed of intelligent men, and, whatever its possible disadvantages, its history in the past has been marked by progress and prosperity. If the Councils of the Colleges have misgivings lest a deterioration of their professional

spirit or their qualifications might follow the application of this principle in their own case, we would bid them take confidence. Among their less prominent alumni are many men well able to appreciate the value of a high standard of professional education and practice, and it is not likely that their number will diminish. The Privy Council, it is satisfactory to learn, has interested itself in these proceedings. It engages to weigh the opinions of the Members, and we presume of the Licentiates also, before it ratifies any material change in the Charters of the Colleges. If, however, it should happen that ordinary measures fail to attain the desired object, the Practitioners' Association proposes to avail itself of other and more effectual help. The motion by Dr. Brierley asks for the appointment of a Royal Commission to inquire into the subject, and unless a request so reasonable can be turned aside by party influence, it is difficult to see how the claim for representation can fail to be conceded.

ALTERATIONS IN THE EXAMINATIONS AT THE UNIVERSITY OF LONDON.

WE are pleased to see, in the interest of the candidates, that the number of hours at the Matriculation Examination will be reduced from twenty-eight to twenty-five. They will now only be required to show a competent knowledge of one instead of two languages—viz., Greek, French, German, Sanskrit, or Arabic, in addition to Latin, and English language and English history, with the geography relating thereto. Mathematics; mechanics; and one branch of experimental science—viz., chemistry, or heat and light, or magnetism and electricity—are the science subjects carefully laid down to balance the classics. Experience has apparently proved to the authorities that chemistry can be taught at only few schools, and we venture to say that the other branches of experimental science will not be better taught. Moreover, if science has to be taught to schoolboys, why might not some choose one of the various branches of biology, which we, at any rate, believe to be more interesting and important? The only answer is that, however much boys may wish to prosecute such studies, teachers are wanting. But adequate teaching and instruments for experimental science exist in but few large schools and in the science colleges, and the preparation of the rest is *pure cram*. By cram we mean laying stress on a number of isolated facts without insisting on a knowledge of the principles which underlie them, or of the instruments by which they are demonstrated to exist. If the University of London were to insist on a sound knowledge of any one branch of learning—classics, mathematics, English, or an experimental science,—some advantage to real learning might result. Now it presents to the candidate merely an *olla podrida*, and cannot make up its mind whether its matriculation examination is the *terminus a quo* for its degrees, or the *terminus ad quem*, when the learning of the pupil is to come to a stop.

A practical examination with patients will be held in the Examination in Surgery at the M.B. Pass Examination. The recent visitation by the General Medical Council has led to the removal of one blot which was most forcibly insisted on by the official visitors. "There was no Clinical Examination; no operations were required on the dead subjects; no testing as to bandaging was employed; no recognition was required of surgical instruments or apparatus." Such shortcomings are simply and solely the outcome of the University regulations, and for them the examiners are by no means responsible. We think that other alterations on the lines suggested by the Visitors will have to be carried out, for the M.B. Lond. is a registrable qualification, and this must always include a sufficient examination in surgery as well as in medicine and midwifery, and as there are still a few students who do not present themselves to the corporations for examination, but are registered merely on their University degrees.

DEATH FROM CHRONIC LEAD POISONING

AN inquest was held recently at Islington touching the death of a woman aged about thirty-eight. Deceased had worked for many years at a white lead manufactory, and had from time to time suffered from "a touch of the lead,' or in other words had had "painter's colic." She is reported also to have indulged in alcohol, although the post-mortem examination failed to furnish evidence in support of the assertion. For some time before her death there had been weakness of the extensor muscles, yet this could not have been greatly developed, seeing that deceased had continued her occupation until within about ten days of her death. On the last occasion of leaving her employment she showed, in addition to her previous symptoms, signs of cerebral disturbance. As the latter became alarming she was removed from her home to the workhouse, where upon her admission she was found to be delirious. The delirium passed into insensibility, and this into death. She had no saturnine convulsions. At the necropsy the gums were seen to be bordered by a deep blue line, more deeply coloured on the dental than on the labial surface. The muscular coat of the intestines was greatly hypertrophied, though the bowel was not at all contracted. The colon was filled with solid fæces. The liver, spleen, kidneys, heart, and lungs were fairly healthy. The dura mater and arachnoid appeared normal. The meshes of the pia mater were filled with cloudy serosity, but there was no coagulated plasma, and none of that sulphur-like layer found in pronounced meningitis. The cerebral veins were full, but presented no evidence of ante-mortem blocking. In short, there was no intra-cranial disorder other than is found in cases of cerebral irritation from many other causes than lead-poisoning; nor, indeed, could the condition be better described than as what is commonly called "serous apoplexy." It is instructive to note that there had been no known disturbance of brain function attributable to deceased's occupation antecedent to her fatal illness. The surgeon engaged to attend the factory hands stated that 99 per cent. of the operatives had the blue line, and a man who gave evidence at the inquest, and who had only worked in lead for about three months over a period of three years, showed a decided discolouration of the gums. There was ample testimony to show that every precaution had been taken by the employers to protect their workpeople, both as regards legal imposition and voluntary action. We understand that there is the greatest difficulty to compel the operatives to habitually avail themselves of preventive treatment; but even allowing for this, we cannot help thinking that "white lead" making is still a dangerous occupation, and one alike calling for scientific aid and legislative enactment requiring regular medical inspection. The mere weekly attendance of a medical man is delusive in its supposed benefit to the workers in lead, for the existence of the blue line is not considered of sufficient moment to discharge operatives, and obviously many of them will rather conceal any slight subjective symptoms than run the risk of being invalided and so lose their source of income. We cannot subscribe to the opinion given by the medical man to the firm "that the blue line was not evidence of constitutional affection." It is true it may not be accompanied by other manifest signs or symptoms, but, for all that, it proves that the metal has been absorbed into the circulation, and that thus it may be slowly and silently working irretrievable mischief in the tissues—mischief which at any time may show itself in colic, palsy, or even in fatal activity in the brain. An analysis of portions of the liver, made by Mr. A. P. Luff, showed traces of lead.

THE CLINICAL SOCIETY.

THE address given by the new President to the Clinical Society on his taking the chair for the first time was, as such addresses are likely to be, eminently characteristic. The address showed a good many traits of Dr. Broadbent's mind, but it showed none better than this—his appreciation of, and interest in, all the branches of the great tree of medicine. He is not one of those who cry "Diagnosis. diagnosis, diagnosis," and then neglect the treatment. Neither does he sympathise with the anatomical to the exclusion of the clinical or experimental pathologist. Like the true practical physician, he believes that all the knowledge of a medical man should be utilised to the full for the benefit of the patient. His remarks on reducing the temperature by special antipyretic drugs struck us as particularly philosophical and practical. Who knows, indeed, what other actions antipyretics may possess? The other actions may be deleterious, innocuous, or harmless. It is tempting, but useless, to speculate as to the probable effect of antipyrin on other than thermogenetic functions. We require more actual knowledge of the action of these drugs on the nervous centres and heart. The value of presidents' addresses consists in their being historical, as well as ornamental, useful, and introductory. The medical historian of the future will find in these addresses a representation of the feelings and thoughts of eminent physicians and surgeons; he will also find in them indications of the aspirations of the times at which they were delivered, and of the special tendencies of knowledge.

THE ELECTION AT ST. BARTHOLOMEW'S.

THE vacancy in the staff of St. Bartholomew's Hospital, caused by the resignation of Dr. Wickham Legg, is likely to prove the occasion of a severe contest. From the list which we append below it will be seen that the number of candidates is exceptionally large, for the system that prevails at this hospital of encouraging junior members to hold the temporary staff appointment of "casualty physician" necessarily lays open the office of assistant-physician to a considerable number of claimants. Many of the candidates, too, are well known for their scientific attainments and important contributions to medicine. Dr. Samuel West, who has been medical registrar to the hospital for several years, and medical tutor in the school, has very great claims, which we should like to see duly acknowledged. Amongst the many earnest and able workers in the ranks of young physicians, few have done so much both in clinical and pathological research as Dr. West. Dr. Percy Kidd, another candidate, is also favourably known for his contributions to pathology, especially in pulmonary disease. Dr. Ormerod is equally well known as a careful investigator in neurological science. Dr. Vincent Harris has done good work as a physiologist. Besides these gentlemen, there are others named more or less known outside the limits of their school, and the governors will have no little difficulty in making a judicious selection. We must emphatically protest against the retention in this hospital of the ancient method of election by the whole body of governors. It involves great hardship upon the candidates, and places them in a humiliating position; whilst it by no means follows that the candidate who is best qualified will be elected. Surely it is time that this state of things were altered, and the election placed by the governors in the hands of a select committee, which should largely consist of members of the medical staff, who alone are capable of forming a correct opinion of the merits of candidates. This plan is now adopted at many hospitals, and works admirably; whilst it has done away with the degrading canvass system, whereby members of a learned profession have to stoop to solicit the votes of individuals who have no interest in or knowledge of what constitutes the real claim to a position on a hospital staff. Another suggestion has been made which is worthy of consideration—viz., that the staff on the medical side of St. Bartholomew's Hospital should be increased by the addition of a physician and an assistant-physician. There is ample room for such enlargement, and it would harmonise with the number of members on the surgical staff. If carried into effect, such a change would create two more medical vacancies, and there would be no difficulty in filling them from among the following names of gentlemen who are candidates for the post of Assistant-Physician, now vacant:—Oswald A. Browne, M.A., M.B. Cantab., M.R.C.P. Lond; Arthur Temple Davies, B.A., M.B. Cantab., M.R.C.P.; Archibald Edward Garrod, M.A., M.B. Oxon., M.R.C.P. Lond.; Samuel Herbert Habershon, M.A., M.B. Cantab., M.R.C.P. Lond.; Vincent D. Harris, M.D. Lond., F.R.C.P. Lond.; Wilmot Parker Herringham, B.A., M.B. Oxon., M.R.C.P. Lond.; Henry Lewis Jones, M.A., M.B. Cantab., M.R.C.P. Lond.; Percy Kidd, M.A., M.D. Oxon., F.R.C.P. Lond.; Joseph Arderne Ormerod, M.A., M.D. Oxon., F.R.C.P. Lond.; William Edward Steavenson, M.D. Cantab., M.R.C.P. Lond.; Howard Henry Tooth, M.A., M.D. Cantab., M.R.C.P. Lond.; Samuel West, M.A., M.D. Oxon., F.R.C.P. Lond.

DIPHTHERIA AT EALING.

A SERIOUS outbreak of diphtheria has occurred at Ealing The disease appeared at the close of the week ending January 22nd, and continued to increase until Thursday, January 27th, when fresh cases ceased to occur. In all up to the time named twenty-three cases were discovered, and three cases terminated fatally, one of them in the person of Mr. Charles James Fox Kenworthy, of Kerrison Lodge, The Park, Ealing, a gentleman thirty-four years of age, and very much esteemed. One of the remarkable features of the outbreak was that not a single instance of an attack was met with amongst the poorer classes—a fact which presupposes that neither water-supply nor drainage is accountable for the outbreak. The idea that milk is the source of the contagion seems pretty general, and Dr. Corfield has, we understand, been called in to inquire into the matter. He is reported to have inspected the principal dairy farm at Ealing in company with the medical officer of health, and after inspecting the ninety-six head of cattle on the farm, together with the cisterns, the drainage, and the sheds, has come to the conclusion that everything is unexceptionably good. The suggestion, therefore, is that if milk be the cause of the evil, it has been imported into the locality—a suggestion the more probable because such importation is rather extensively carried on. The whole subject is still under investigation, and as the elements of the problem are narrowed down to a few we should hope the solution of the mystery will be definitely solved.

UNIVERSITY OF EDINBURGH.

WE have hitherto studiously declined to enter into the painful details of the scandal now agitating the University of Edinburgh and, through it, the public. Everyone must regret to see a man in the position of Professor Rutherford bringing charges of a gross character against his assistant, and having to acknowledge them groundless and to retract them. We have no right to speak judicially, even if we had the means of investigating all the facts of the case; but we are all interested in the welfare and the fame and reputation of the University of Edinburgh; and we think it not only a discredit, but a misfortune, that no notice has been taken of this matter in its earlier stages by either the Senatus or the University Court. The Senatus is an exclusively professorial body. And it is a fault of the

University that all arrangements seem to regard too exclusively the interest of the professors. Scarcely from such a body could effective intervention have been expected. But the University Court is more responsible. It has powers of censure. In it the public, the graduates, the students, as well as the professors, are represented. And yet it has allowed this matter to grow to a height that is damaging to the reputation of the University and of the professor more immediately affected, to say nothing of his assistant. We shall want fresh guarantees in the new legislation for the Scotch universities against the recurrence of such scandals as this, and in favour of those assistants whose work is only second in importance to that of the professors, but whose emoluments are so small and so liable to discontinuance with the cessation of dignified relations with the professor. Even now, and with its present powers, the University Court ought to intervene, and it would satisfy the public that the University of Edinburgh is a school where scandal may not be raised with impunity.

AVIAN TUBERCULOSIS.

THE October number of the *Journal of Comparative Medicine and Surgery* (Philadelphia) contains an interesting article upon Avian Tuberculosis by Mr. Bland Sutton. The bibliography of this subject is comparatively small, and Mr. Sutton's contribution is therefore all the more welcome. The disease affects mainly, if not entirely, graminivorous birds, and its occurrence in birds of prey may often be attributed to their feeding on tubercular smaller birds. As an illustration of this in another class of animals Mr. Sutton cites the case of a python which died with tuberculosis of the liver, having been fed on fowls, pigeons, and ducks, "which are exceptionally liable to tuberculosis." The marked characteristic of avian tuberculosis is the selection of the alimentary canal and associated organs for the seat of the disease. Large nodular masses form in the intestinal walls, and may give rise to actual obstruction, or eventuate in peritonitis. The lymphatic vessels in connexion with the bowel are often dilated and plugged with caseous material; whilst the liver and spleen show abundance of miliary deposits, resembling in their early stages those produced by such parasites as gregarinidæ. The portal circulation in birds is peculiarly suitable for the secondary infection of liver and spleen. Microscopically, the tubercular nodules consist in early stages of a central focus of round and giant cells, with bacilli in and around the cells; in older nodules the caseous centre is surrounded by an epithelioid zone, and that by a "bacilliferous zone" in which large giant cells occur, and that finally by a zone of inflammatory cells. The bacilli, which are perfectly homologous with the bacillus tuberculosis of Koch, occur in vast numbers; and careful observation shows that in the liver they are arranged in masses corresponding with minute vessels, whose lumina they completely plug. Mr. Sutton finds here an illustration of "amœbic warfare," to which attention was first drawn by Metschnikoff, and subsequently by Mr. Sutton himself in his lectures at the College of Surgeons. The bacilli gaining entrance by the food invade the walls of the intestine, and thence enter bloodvessels, where they encounter leucocytes, which by fusion constitute "giant cells," and take up numbers of the bacilli. He compares the tubercular nodule to a battlefield, the older masses containing most giant cells and indicating the traces of the past struggle in the caseous débris of dead cells and the extending zones of contending cells and bacilli. The disease is probably propagated by contamination of grain with the excreta of affected birds; yet hitherto attempts to detect bacilli in the excreta have failed. Mr. Sutton, however, adduces collateral evidence in support of this, and gives some striking facts upon the propagation of disease among parrots and other birds from neglect and overcrowding. In conclusion, he points out that the high body-temperature of birds doubtless favours the luxuriant growth of bacilli within their tissues, and suggests the possibility that the tubercular bacillus may have been evolved from some harmless form, "and that its peculiar character of thriving best at a temperature equal at least to that of the human body was first acquired by being transplanted to a medium, the chief constituents being *animal excreta*."

THE SHOP HOURS BILL.

THE Shop Hours Act, 1886, came into operation at the beginning of the present year. The limitation expressed in this measure, though it does not err on the side of stringency, has achieved a definite good. Something has been done to restrict the almost incessant work which from week to week was telling with unquestionably serious effect against the health of many young men and women. It cannot be said that the allotted period, seventy-four hours per week, is unduly short. It might, we imagine, be still further curtailed in the case of a good many shops without serious injury to trade. We do not pretend that shop labour is at all times arduous. Both as regards muscular and mental activity it is often, no doubt, sufficiently exacting; but, apart from such considerations, the atmosphere of even large establishments is frequently by no means well adapted to the preservation of health. On this subject we have before spoken at some length, and need not therefore now discuss it further. One evident advantage possessed by this Act is the elasticity conferred upon it by granting power to local authorities to modify its provisions to a reasonable extent in conformity with the local fluctuations of trade; and since in any calling two-thirds of the voting strength must support a proposed alteration, there is reason to expect that this liberty will not often, if ever, be abused. The right of keeping open shop on Sunday is denied to all callings, except those of publicans, keepers of restaurants, tobacconists, and news-agents. Even these, perhaps, might without much public inconvenience be included within the terms of the Bill, provision being made if required, as in the case of chemists, for occasions of real emergency. It has been found impossible so far to apply in the working of the Shop Hours Act the costly machinery of inspection. We sincerely hope that no such system may be required, and that public opinion may act as somewhat of a substitute. Where business premises consist of shop and factory combined the inspectors appointed under the Factory Act are available, and the need of their services in such cases has unfortunately been proved by experience. There is a tendency on the part of some employers to use their workshop employés after the allotted work period to reinforce the staff of ordinary shop-servers. Such an abuse, it is obvious, can only be remedied by careful and frequent inspection. Having thus considered some of the leading features of the new Bill, it is hardly necessary for us now to speak at greater length upon it. Even in its present somewhat imperfect form it must relax considerably the too great strain of business life, and we are convinced that employers will find themselves repaid in the quality and amount of service rendered in the shorter period for the working time which they appear to have lost.

HEROIC DOSE OF TURPENTINE IN CROUP.

IN an obstinate and dangerous case of diphtheritic croup, which had extended into the larynx, after painting with boracic acid, and subsequently with a chloric acid application, without benefit, the child's condition becoming worse and worse, Dr. Lewentaner of Constantinople, before resorting to tracheotomy, remembering a paper by Demlow in which turpentine was recommended in these cases, determined to give it a trial, and so

administered with his own hands a teaspoonful of the pure oleum terebinthæ, giving after it some warm milk. In a quarter of an hour the laboured laryngeal breathing had given way to normal respiration sounds. That night the child slept well and was quite free from the brassy cough which had previously been present. The next morning he was quite lively and was found playing with his toys. All trace of false membrane had disappeared from the pharynx, which merely presented a reddened surface. Convalescence was rapid and uninterrupted. The turpentine, however, caused an eruption on the face, trunk, and extremities, having much the same appearance as the rash of measles but of a brighter red. The spots completely faded in two days, and were followed by no sign of desquamation.

THE REGISTRAR-GENERAL'S ANNUAL REPORT.

THE forty-eighth annual report of the Registrar-General has just been issued, and contains the detailed vital statistics of England and Wales for the year 1885. It is satisfactory to note that the usual delay in the appearance of these annual reports has been abridged by more than three months, which encourages the reasonable hope that the increasing portion of the public which is interested in the national health statistics may in the near future anticipate the publication of the Registrar-General's detailed annual report, at any rate before the close of the year following that to which its statistics relate. The Registrar-General of Ireland has set a good example to the Registrars-General of the other portions of the United Kingdom in this matter, for his report for 1885 was issued early in July last. On the other hand, the detailed report of the Registrar-General for Scotland for the year 1884 has not yet been issued. It is true that an approximate annual summary of the vital statistics of each part of the United Kingdom is published in various forms within a few weeks of the close of each year, but this does not lessen the force of the unquestionable fact that the value of all vital statistics depends in great measure upon the promptness with which they can be issued after the occurrence of the facts with which they deal. Great as is the interest attaching to the exhaustive series of tables contained in the Registrar-General's Annual Report for 1885, it is impossible to ignore the fact that at the present moment that interest is considerably discounted by the fresher interest felt in the summary of the figures for 1886, which is now due. The year 1885 completed the first quinquennium of the current intercensal decade 1871-80, and was, as the Registrar-General reports, "the fifth consecutive year in which the death-rate did not exceed 19·6, the lowest death-rate in any year previous to this quinquennium having been 20·3." The mean rate in these five years fell to 19·3, from rates that had steadily declined in the four preceding quinquennia from 22·6 in 1861-65 to 20·8 in 1876-80. It is impossible to doubt the substantial improvement of the public health implied by these figures. The great saving of life in recent years has been mainly due to decrease of child mortality, and of mortality from the principal zymotic diseases. At the same time it is eminently satisfactory to note, from the report now to hand, that while the decline of mortality in the five years 1881-85, compared with the mean for the whole registration period 1838-85, was most marked under thirty-five years of age among males, and under forty-five among females, the death-rate in the quinquennium at each of the twelve age periods was below this general average. This must be especially satisfactory to those who have refused fully to recognise the advantage of the decreased mortality in early life, because after middle life the death-rates continued to increase after the decline in the rate of child mortality and of the gross death-rates at all ages had set in. The report just published contains some special and interesting statistics upon the marriage ages of bachelors in different classes and occupations; on the mortality from hydrophobia in England and Wales in the thirty-eight years, 1848-85; and upon the local age and sex distribution of mortality from diabetes in the thirty years, 1856-85. We shall have occasion to refer to these subjects in a further notice of the report just issued.

ACUTE SPREADING GANGRENE.

IT is not often that examples of this terrible and fatal disease are met with, improved methods of treating wounds and the wounded having almost effectually banished it from the list of surgical accidents during treatment. A short account of a case, which was admitted under the care of Mr. Sydney Jones at St. Thomas's Hospital, will therefore be of interest. The patient, a fairly healthy-looking man, aged forty-three, a gardener, who said he had previously enjoyed good health, fell, on Tuesday, Jan. 25th, and ran a rusty spike into his left leg, about four inches below the knee, making a long punctured wound upwards and backwards, wounding a vessel in the position of the anterior tibial artery. The hæmorrhage appears to have been easily arrested, and the man was sent home and put to bed by his medical attendant. He suffered severe pain in the leg until the Thursday morning, when it began to swell and the pain ceased; the swelling rapidly extended and the leg became discoloured. On Friday midday he was sent to the hospital, and was then very ill, but apparently unaware of his serious condition. The leg was swollen from the foot almost up to the groin, and emphysematous crackling extended, chiefly on the outer side of the thigh, to the hip, and downwards over the foot, which was cold and without sensation. The leg was gangrenous, the region of the wound very tense, cold, and purplish-black, with vesication. Above the knee there was brownish pigmentation of the skin, and this, like the œdematous swelling of the thigh, was most marked on the lateral aspects. His tongue was dry, pulse rapid and compressible, and examination of the urine showed the presence of much albumen. Amputation above the middle of the thigh was performed soon after admission, but the patient, who did well for a time, died somewhat suddenly on the following afternoon, four days after the receipt of the injury. There was slight emphysematous crackling in the subcutaneous tissue of the stump, and tenderness along the femoral vein on the morning after the operation.

WARMING RAILWAY CARRIAGES.

IT is very strange that the repeatedly urged proposal to warm railway carriages by a complete system of pipes heated with the waste steam and the hot air from the engine has not been carried into effect. There would be no serious difficulty and comparatively little expense in putting this plan in operation. At the moment we write it is warm enough for spring weather; a day or two ago the weather was wintry. The cold may return, and, if it should, we shall be shivering under burdensome rugs, even in first-class compartments, while those who travel by the more genial appliances of locomotion across the Channel are taking matters more easily, and, if not actually enjoying themselves—by reason of the intolerable slowness of even fast trains on the Continent—will be, at least, free from perils by chill; not, indeed, because railway companies across the silver streak are one whit more considerate of the comfort and well-being of their passengers, but because the weather being less severe, the ills and grievances of a railway traveller's life are less difficult to bear. It will be well if the companies begin to warm their carriages at once; if not, they must be compelled to do this small service to the

public. Meanwhile, let those who travel in cold weather insist on securing as many foot-warmers as possible in the compartment, and have them frequently renewed, so that the atmosphere of their carriage may have the keen edge taken off its icyness.

ANTIPYRIN IN PHTHISIS.

ANTIPYRIN has been shown to have various uses, but if the success which has been reported by Dr. Zakrzhevski in a paper contributed to the *Russian Military Medical Journal* attends the practice of other medical men, this drug will hereafter be looked upon as almost a specific. While under ordinary methods of treatment the mortality of phthisical patients in the Helsingfors Hospital was 50 per cent. during the eight months in which the antipyrin treatment has been carried out not a single case has proved fatal, many of the patients having, on the contrary, improved so decidedly as to be able to return to their homes. The author much prefers the hypodermic method of administering antipyrin, as the effect is produced in less than an hour, whereas when the drug is given by the mouth no effect is produced for from one to three hours. The action of antipyrin is to increase the force of the cardiac contractions, and so to raise the blood-pressure. In phthisical patients it slows the pulse, but never quite to the normal rate. It also slows and deepens the respirations, and the digestive functions are improved. No albuminuria or other sign of renal disturbance was observed. With regard to the dose Dr. Zakrzhevski finds that it should be regulated by the strength of the patients. In a man with phthisis, who was still fairly robust, a full dose of ninety grains was required in order to produce the best effect; whereas in greatly debilitated typhus patients ten or fifteen grains were quite sufficient, and in cases where there was decided exhaustion it was found that a dose of sixteen or seventeen grains was the largest that it was advisable to give.

A FATAL CASE OF SCURVY.

AN inquest held recently at Greenwich shows how narrow is the margin of protection afforded by lime-juice against outbreaks of scurvy when ships are ill-found or the crews unhealthy. In this case the patient, who died just on entering the Seamen's Hospital at Greenwich from syncope, embarked at Calcutta in the ship *Aladdin* on August 12th last. After nine days he showed symptoms of disease, which the captain thought was due to syphilis, and treated him accordingly, but it ultimately proved to be scurvy. Another member of the crew was also affected, but more slightly. Evidence was given which showed that the diet was confined to salt meat, bread, peas, rice, tea and coffee, and water, which was very bad. Such a diet would eventually lead to scurvy, and the date of the occurrence of the outbreak would depend upon the powers of the resistance of each individual member of the crew. The two men who were attacked probably had the seeds of the disease in them when they left Calcutta. We have repeatedly drawn attention to the fact that a very large proportion of crews are recruited direct from hospital. So long as they can pass muster before the agent, they are content to engage for the voyage. As Mr. Harry Leech used to say, more ships are lost through the unseaworthiness of the crews shipped than of the vessels themselves. It is certainly a strange anomaly, that while the captains of ships can have emigrants medically examined the crews are not inspected. The Board of Trade, too, is also responsible for the maintenance of the defective dietary still in vogue in the mercantile marine. In these days of cold storage fresh provisions could easily be served out during the whole voyage; but then the rules and regulations of the Board of Trade stand in the way, and fresh meat may not be substituted for salt, unless the weight of fresh meat is equivalent to the regulation allowance of salt, which is absurd; and it is quite unreasonable to expect owners, if they have already gone to the expense of putting up a cold storage-house, to pay the difference between one pound of fresh meat and one pound of salt—a difference of about 2¾*d*., which would represent a considerable sum on a long voyage and with a large crew. Some time since a large shipping company proposed to introduce a fresh meat supply throughout their vessels, and at their request a well-known authority drew up a diet scale, in which he proposed to substitute twelve ounces of fresh mutton for every sixteen ounces of salt pork and beef allowed by the mercantile marine scale. This very reasonable proposition was not, however, accepted, and for a time the matter was allowed to drop. We hope, however, the Board of Trade will become alive to the importance of improving the dietary of the mercantile marine; with the improved methods of preserving and storing fresh provisions, there can be no excuse for adhering to the antiquated method of provisioning ships still adhered to. There is no reason whatever why the sailor should now be predisposed to scurvy any more than an agricultural labourer. Lime-juice, no doubt, is an excellent preventive, but it is an artificial resource, for if ships were provisioned in accordance with the opportunities now afforded by cold storage and hermetically sealed tins of vegetables, it would become unnecessary and useless.

THE GEORGE THOMPSON FELLOWSHIP IN MEDICINE.

THE conditions and regulations regarding this Fellowship of £100 yearly, founded by G. Thompson, Esq., of Pitmedden, have just been issued by the Medical Faculty of Aberdeen University. The object of the founder was to enable a Graduate in Medicine of the University to pursue further studies and researches at a foreign or some other British school of medicine or hospital. The Fellowship will be tenable for two years, will be awarded after the last term of graduation for the year, and will be open for competition to all who in that or the preceding year have passed all the examinations for graduation in the University. The examination for the Fellowship will be held early in July, will be conducted partly in writing, partly *viva voce*, and partly practically, and will be confined to three of the subjects of the medical curriculum.

MERCURIAL PERIPHERAL (?) NEURITIS.

CLINICAL, histological, and pathological facts grow apace in the subject of diseases of peripheral nerves. The number is great of morbid processes known to the clinical physician in which peripheral neuritis has been found. Alcoholism, tabes dorsalis, diphtheria, endemic neuritis (béri-béri), leprous neuritis, saturnism, mercurialism, typhoid fever, rheumatic fever, and probably other continuous fevers, including tubercle and phthisis, are all accredited causes of lesions of peripheral nerves. Many of these causes do not act equally on the whole length of a nerve. Curiously enough, the changes may occur at intervals in the length of a single nerve. This variety has been badly named "segmental." It contrasts strongly with the Wallerian degeneration of the whole length of the nerve, though in this degeneration the first part to undergo change is that next the point of section, not the terminal plate, which would be furthest away from the source of nutrition. M. Letulle communicated recently to the Académie des Sciences the results of some histological investigations into the conditions of the nerves in mercurial paralysis as experimentally induced in animals. The results are remarkable, and require further investigation. The alterations were segmental, as above explained,

and peri-axial, but not in the least inflammatory. The special character consists in the progressive destruction of the myeline sheath, with preservation of the axis cylinder, but without increase in the number of nuclei of the neurilemma. Letulle speaks of them as trophic changes. Clinically, mercurial paralysis differs from saturnine forms in the preservation of normal electrical reactions, absence of amyotrophy, and persistence of deep reflexes. But further minute study of these paralyses is certainly desirable in the light of most recent knowledge.

THE HOME SECRETARY AND THE CONVICT THOMPSON.

WE are glad to see that the Home Secretary has promised Mr. James that a careful inquiry shall be made into the facts of the case of Thomas Thompson, now under sentence of death in Durham gaol for the murder of his child at Gateshead. We have reason to believe that there are unmistakable proofs of melancholia in Thompson's family. If there are any cases of murder, more than others, in which it is proper, and indeed imperative, to investigate and give due weight to facts proving an element of insanity in the murderer, it is in such a case as Thompson's, where the murderer kills his own child. It would be painful indeed to see such a man executed without the fullest proofs that he had escaped the evil inheritance of his family.

CHOLERA AND QUARANTINE IN SOUTH AMERICA.

IS is quite evident that cholera is on the increase in South America. On the east coast Uruguay and the Argentine Republic are affected, the disease having commenced at the important ports of Monte Video and Buenos Ayres. Inland there has been a somewhat wide diffusion into the centre of the Argentine Republic and also as far north as Paraguay. At Monte Video the increase which is taking place is considerable. On the western coast of the continent the disease appears so far to be limited to Santiago. The first spread of cholera to South America is believed to have taken place in connexion with a very considerable emigration of Italians to the district of the River Plate; but it is not easy to determine which locality became first affected. The attitude of the several Governments concerned is thoroughly characteristic of nations wedded to the quarantine system. Each one begins by denying or minimising the news as to cholera, and then when all are alike infected they set up a rigid system of quarantine between themselves.

TREATMENT OF TYPHOID FEVER BY INHALATION OF COLD AIR.

M. A. SOKOLOFF, of the Military Hospital of Krasnosesky, published some time ago interesting researches on a new method of treatment of typhoid fever. The author had remarked that the patients suffering from this disease who were placed in tents could without inconvenience respire air at a temperature of zero, and that coincidently the temperature of the body fell from 40° C. to normal. He was thus led to conjecture that inhalations of cold air might be employed with a therapeutic object in view. He experimented on twenty-three cases, and found that inhalation of air nearly at zero caused a more or less pronounced defervescence, though the action is, as might have been expected, less lively than with cold-air or cold-water baths, and is at the same time more transitory. He found that the action varied under different conditions, the defervescence being least from midday to 6 P.M., and greatest between the hours of 7 and 10 in the evening. The effects were less during the first fortnight, the defervescence effected being less than 1° C., and lasting for only an hour and a half or two hours, whilst they were greater after the first fortnight, the defervescence amounting to more than 1° C. and lasting for several hours. The duration of the inhalation was found to be of little importance, a *séance* of ten minutes' duration being equal to one of twenty minutes. The best time was from twelve to fifteen minutes. The defervescence was not in direct ratio to the temperature of the air inspired, and air at very low temperatures did not act any better than air at somewhat higher temperatures, because exposure to the former had to be curtailed. Depression or excitation of the patient diminished or suppressed the antipyretic action of the inhalations. The general effects of inhaling cold air were that the respiration was diminished in frequency by about four times in the minute, and became deeper; the pulse was lowered on the average six beats, and became more full. On the other hand, the skin and mucous membrane became less dry.

THE APOTHECARIES' SOCIETY AND PRESCRIBING CHEMISTS.

READERS of THE LANCET of Jan. 8th may remember the case of a chemist at Bedworth, named Homer, visiting and attending a child till it died. The facts were investigated by the coroner, and the jury found that the chemist had been guilty of a breach of the law in attending, prescribing, and giving a certificate of death. A correspondence has been sent to us by Mr. Upton, clerk of the Society, showing that the Society was ready to prosecute the chemist, and gave him notice of their intention to commence proceedings. Thereupon Mr. Homer pleaded to have the proceedings stayed, and promised that the Society should have no more occasion to complain. The Society then drew out a form of undertaking to be signed by the chemist, and agreed, on these conditions, to abandon proceedings. The Society deserves praise for action in this matter, and not least for its readiness to forbear on a promise of good behaviour, which we anticipated in our notice of the case. There are many culprits who have not given any such promise, who should not be so leniently dealt with.

SALICYLIC ERUPTION.

BURNING sensations in the skin, œdema of eyelids, and patches of bluish-red erythema were noticed by S. Rosenberg to follow the administration of four grammes of salicylate to a sempstress. A bullous eruption appeared on the site of the erythema as the result of continued use of the drug. Three days after the discontinuance of the drug the vesicles dried up. A fresh experimental observation was made, with a similar result. The urine gave a distinct ferric chloride reaction. The inunction of salicyl ointment was followed by burning and red patches on the skin with blueness of face, and the urine showed the salicyl reaction.

THE CRICHTON ROYAL INSTITUTION, DUMFRIES.

IT will doubtless be remembered that about the middle of last year Dr. Lennox, assistant medical officer at the Crichton Royal Institution, Dumfries, charged Dr. Rutherford, the medical superintendent of that institution, with subversion of order in the house, and also complained of the inferior quality and deficient quantity of the food supplies. The General Board of Lunacy held an inquiry into these charges, and the result of their investigation has been published. The conclusions which were arrived at are as follows:—(1) The charge of want of discipline is unfounded; (2) the statements made by Dr. Lennox respecting the food are undeserving of confidence, the supplies being satisfactory, although on a considerable number of occasions the cooking of the food appears to have been unsatisfactory

(3) that the estimate of the cost of the food is unsupported by facts, and shows an ignorance of the cost of the food of patients in other asylums; and (4) that the charges against the management were prepared and brought forward in a way which deserves strong censure. Two medical commissioners who visited the asylum at the request of the Board of Lunacy also reported most favourably of the discipline and food-supply of the establishment. The case has excited much local interest, and Dr. Rutherford is to be congratulated upon the result of the inquiry and the termination of an episode which must for some months have been a cause of considerable mental annoyance.

IMPENDING RUIN OF SPANISH PHARMACISTS.

La Vara de Esculapio states that since the beginning of July—that is to say during the last six months—nine pharmacies in Madrid have been closed, and that forty more will certainly follow their example before July, 1887; also that unless the present arrangements about military pharmacies are entirely changed an additional seventy will probably close at some subsequent date. If this prophecy comes to pass, the Madrid pharmacies will in a short time have been diminished by 109! In this country chemists have to compete with the stores and seem to have good reason to complain, but we never hear of such wholesale closures as are being carried out in Madrid, where, though the military pharmacies may to an unjustifiable extent supply civilians at something like cost price, as is alleged, no medical man thinks of such a thing as dispensing his own medicines. *La Farmacia Española*, referring to the subject, suggests that the doctors and pharmacists should combine together and demand the consideration of their rights from the Government.

UNIVERSITY EXTENSION IN SCOTLAND.

A MOVEMENT is at present in progress among the Scottish Universities for the organisation of systematic courses of extension lectures upon all departments of science and literature, similar in range and aim to those which were initiated in England upwards of twelve years ago by one of our best known educationists, Professor Stuart, M.P., and which have been so successfully carried on by the University of Cambridge, particularly in the mining and manufacturing districts of the north of England and the midlands. It is hoped in Scotland to overcome the difficulty of supplying regular and complete instruction, so far as the Universities are concerned, by uniting their available lecturing power; so that while any town would naturally in the first place be supplied, as far as possible, from the nearest University, any desired course might be drawn from a more distant one. The project of establishing "extension colleges"—i.e., centres of regular teaching—is already under consideration in several of the most important county towns and manufacturing centres throughout Scotland, especially in connexion with the local jubilee movements.

TUBERCLE INOCULATION DURING CIRCUMCISION.

DR. EISENBERG, writing in a Polish medical journal, gives an account of a case where tubercular infection was conveyed to a child during circumcision through the filthy practice of sucking the wound. Several cases of this kind have been previously recorded by Lindmann and by Lesmann, who recorded ten instances of infection by one operator. The interest of this case lies chiefly in the doubt which at first existed as to the nature of the ulceration, which had very much the appearance of a chancre, but which on microscopical examination showed the existence of tubercle bacilli. The operator was apparently in pretty good health, having only a trifling cough, but tubercle bacilli were found in his sputum, and in the inter-arytenoid space some distinct tubercles were seen by means of the laryngoscope on an infiltrated base.

EPIDEMIC DIARRHŒA.

IT is unusual to hear of any epidemic prevalence of diarrhœa during the winter months, yet there is little reason to doubt that a large number of persons in London have during the last few weeks suffered from this malady, and this in a manner which raises a strong suspicion of community of cause. The subject is one that would likely enough escape attention, for the ailment is not of a character to influence death returns; nevertheless, diarrhœa is sometimes associated in its etiology with other diseases of a serious nature, and we cannot regard the appearance of groups of cases of this affection without some anxiety as to its meaning. Health officers would render valuable service by placing themselves in communication with medical practitioners in their district, for the subject is well worthy of investigation.

THE COSTS OF THE ELECTION OF DIRECT REPRESENTATIVES.

WE are asked to remind our readers that the costs of the election of Mr. Wheelhouse and Sir Walter Foster are still undefrayed by the contributions that have been received, and that subscriptions will be gladly received by Dr. Robert Saundby, Edmund-street, Birmingham.

DISPENSING BY MEDICAL MEN IN FRANCE.

IN the French Medical Bill, which has been drawn up and published, the old law which permitted practitioners residing in towns, villages, or communes where there was no chemist's shop to supply medicines to their own patients is now proposed to be altered, so that dispensing may be done only in cases where there is no chemist within four kilometres. Upon this *Le Practicien* remarks that it is to be hoped that all rural practitioners, who would simply be unable to exist under such conditions, will protest most energetically against this alteration, drawn up, as of course it is, by persons who have no knowledge of the conditions of medical practice in the country.

THE JACOB TESTIMONIAL.

IT is gratifying to observe that the Jacob Testimonial is likely to be a great success. The subscription-list includes the names of many eminent physicians and surgeons in the United Kingdom, whilst the popularity of the movement is shown by the support it receives from the rank and file of the profession.

THE BLOOD IN LEUKÆMIA.

DR. PRUS, a Polish observer, having studied the composition of the blood in five cases of leukæmia, writes (*Medycyna*, No. 39, 1886) that crystals of leucin are only found in the form of leukæmia which is accompanied with swelling of the glands. In general the number of Bizzozero's plates is very considerable, while the crystals of Charcot and Neumann are but seldom found. The movements of the white corpuscles are greatly increased.

DEATHS OF EMINENT FOREIGNERS.

THE following deaths are recorded:—Prof. Aug. Nonat, formerly a well-known and highly esteemed Parisian gynæcologist, in his eighty-third year; Dr. Antonio Garbiglietti, Dean of the Royal Academy of Medicine of Turin; and Dr. Pieter Hendrik Suringar of Amsterdam.

SMALL-POX IN AUSTRALIA.

NEWS from Melbourne is to the effect that, there having been no increase in the cases of small-pox amongst the passengers landed there and at Adelaide from the Norddeutscher Lloyd steamer *Preussen*, those who were detained in quarantine have been released.

FOREIGN UNIVERSITY INTELLIGENCE.

Halle.—Dr. Oberst has been nominated Extraordinary Professor of Surgery.

Prague.—Dr. Emil Kaufmann has been recognised as Privat Docent in Otology in the Bohemian Faculty.

Vienna.—The Ministry of Education has addressed an inquiry to the Professorial Senate as to the necessity of establishing a third ophthalmic clinic—that is, one in addition to those under the charge of Professors von Stellwag and Fuchs. A committee has been appointed to report on the matter.

LECTURES will be delivered in Gresham College, Basinghall-street, E.C., on the Glands, on the 8th, 9th, 10th, and 11th inst., at 6 P.M., by Dr. E. Symes Thompson. The subjects of the respective lectures, which are illustrated by diagrams and free to the public, are the Structure and Function of the Absorbents; the Glands in Health and Disease; Diseases of the Glands; and the Surgical Treatment of Glandular Disease.

SEVERAL practitioners residing in and on the borders of the hamlet of Mile-end having consented to notify the occurrence of cases of infectious disease coming under their notice, the guardians have resolved to allow a fee of 2*s.* 6*d.* for each case so notified.

IN reference to the honour conferred on Prof. Billroth, to which we alluded last week, we may remark that the Vienna surgeon is the third medical professor who has in recent years attained the dignity of the Austrian peerage, the other two being Rokitansky and von Brücke.

SEWAGE SLUDGE.

THE best method of dealing with sewage sludge is one of the most pressing questions of the day. The importation of foreign guano has tended materially to reduce the expectation of any reasonable pecuniary return by the sale of sludge for the cost incurred by its separation from the fluid which accompanies it. Nevertheless, this removal is necessary in the interest of the purification of the effluents which now discharge into our rivers, and it may be hoped that the many experiments which are being carried on for this purpose may at last end in success. Mr. William J. Dibdin read an interesting paper last week on this subject, in which he pointed out that the solubility of a portion of the suspended matter in solutions of lime seemed to have been entirely overlooked; that the use of an excessive quantity of lime, while affording a rapid settlement of the sludge and a more or less clear effluent, dissolved a by no means inconsiderable quantity of the offensive matters previously in suspension. Chemical precipitation was incapable of removing more than a limited quantity of the oxydisable organic matters in solution in London sewage. Of the various chemical agents, sulphate of iron was superior to alumina for sewage purification, the latter being valuable chiefly for its effect in removing some of the colour from the effluent, but leaving the matters actually in solution. He regarded sewage sludge presses as a convenient mode for converting the sludge into a semi-dry portable form, but doubted the successful use of the material thus prepared, and said that, in place of the farm, in many cases the furnace appeared to be the ultimate destination of the offensive matter. In the case of the metropolis the conveyance of the sludge to sea was the only available remedy, but where local conditions were favourable, he refrained from saying other methods of disposal were undesirable.

Another paper by Mr. William Santo Crimp on Filter-presses for the Treatment of Sewage Sludge was also read at the same time, the author pleading for the filter-press as a ready means of disposing of the sloppy mass of putrescent mud produced daily in sewage precipitation works. He argued that the offensive and useless mass might be quickly converted into a practically inodorous manure, which was superior to ordinary farm-yard manure.

A very ingenious method of separating the liquid from the solid portion of the sludge was exhibited last week at Walthamstow, in Essex, where arrangements have been made for the application of Mr. Astrop's system of converting sewage sludge into dry powdered manure. At Walthamstow the sewage is run into a tank, where it is subjected to precipitation by lime, and, after the supernatant water is run off, the sludge is pumped into an adjoining building which contains Mr. Astrop's water-extracting machine. It is received first into a large sludge-vat, in which are two hollow perforated metal cylinders covered with fine wire gauze, and which are kept constantly revolving against brushes which keep the gauze clean; a partial vacuum is created in these cylinders by pumping, and about 60 per cent. of the moisture is extracted. The sludge then passes by a sluice valve on to an endless travelling web of wire gauze, having the same sized mesh as the cylinders, and occupying the whole width of the machine. The web is supported by rollers, and also passes under rollers, as well as over one of Körting's exhaustors, by which 10 per cent. of the moisture is removed. The sludge then passes between a series of rollers provided with scrapers, whence it falls into a hopper, and thus reaches a disintegrating cage on the lower floor; here it is exposed to a blast of warm air, and at the end of this process it contains but 5 per cent. of moisture. By this time it is in the form of a powder, which falls through the meshes of the disintegrator on to an Archimedean screw, and by this means is conveyed to a distance, where it is packed into bags. There is but little doubt Mr. Astrop's system will supersede other methods of fluid deprivation, and it can evidently be worked at a very small cost. The value of the product for manure is said to be considerable, but this must be determined more fully by future experience. The method is, however, a very convenient one; the machinery occupies but a very limited space, and is in every way inexpensive.

THE MEDICAL ATTENDANCE ORGANISATION COMMITTEE.

THIS Committee consists of the following gentlemen:—Chairman: Sir T. Spencer Wells, Bart. *Medical:* Dr. J. Ford Anderson, Dr. F. H. Alderson, Mr. E. C. Barnes, Mr. M. G. Biggs, Sir Andrew Clark, Bart., Dr. Alfred Carpenter, Dr. M. Corner, Dr. A. D. Ducat, Mr. W. G. Dickenson, Dr. J. Grey Glover, Dr. Alex. Grant, Dr. John Gordon, Mr. Ernest Hart, Mr. H. Nelson Hardy, Mr. Timothy Holmes, Mr. G. T. Keele, Dr. Alfred Meadows, Dr. W. M. Ord, Dr. H. Campbell Pope, Dr. Gilbart Smith, Dr. J. C. Steele, Dr. Walter Smith, Dr. G. Stoker, Mr. W. E. Steavenson, Dr. Dunbar Walker. *Lay:* Sir T. Fowell Buxton, Bart., Mr. W. Bousfield, Mr. W. G. Bunn, Rev. Canon Erskine Clark, Mr. H. N. Hamilton-Hoare, Lieut.-Col. Montefiore, Mr. F. D. Mocatta, Mr. Claude G. Montefiore, Rev. Geo. S. Reaney, Mr. C. J. Radley. Secretary: Mr. W. G. Bunn, 5, Lamb's Conduit-street, London, W.C.

The meetings of the committee, which are well attended, take place on alternate Tuesdays, from 4 to 5·30. So far not much has been done save to pass the following resolution:—"That any future plan for the medical treatment of the working classes should be conducted upon the principle of assurance, with a small fee at each attendance, or upon each prescription made up. Special terms should, however, be arranged for the admission of persons requiring immediate treatment, who should be compelled to join, and be expected, within one month of recovery, to continue as ordinary members, with the sanction of the medical officer under whom they wish to be registered." Such a resolution, of course, carries us but a little way in this difficult

question. All will agree that it is desirable that the payments of the working classes should be on the principle of assurance—i.e., that they should be periodical, in sickness and in health, in order that they may be of moderate amount, and most would agree to a little extra payment at each attendance or on the dispensing of medicines as a check upon the tendency to make frivolous demands on the medical men. The difficulty begins when we come to details and to formulate schemes and rates of payment which will really satisfy good general practitioners. All the recent attempts to organise medical attendance on the working classes have been more or less unsatisfactory, including those of the Metropolitan Provident Association. They have not improved on the demoralising notion prevalent among the working-classes that medical attendance is to be had for next to nothing. It could not be expected that medical men should identify themselves with an Association which at low terms took patients of all classes without respect to fitness. It remains to be seen whether any modification of the provident dispensary system can be got to work satisfactorily in London, where the conditions of life are exceptional. It is not proved yet that any new discovery works better than the old club system, supplemented by those accommodating terms on which medical men have always been ready to attend the humbler classes in the emergencies of sickness and disease.

THE VICTORIAN JUBILEE AND SANITARY IMPROVEMENT.

A PUBLIC conference was held at the Paddington Vestry Hall on Jan. 25th to consider proposals for commemorating the Jubilee. The following proposals were made:—(1) A recreation ground; (2) a public library and museum; (3) a town hall; (4) the Imperial Institute; (5) and the purchase of the canal basin and wharves, and the removal of the dust-collecting business from the parish. This last proposal had reference to the following motion, which Mr. Mark H. Judge intends to propose in the Jubilee Committee if sufficient support should be forthcoming from the inhabitants:—"That in the opinion of this Committee, the dust-collecting and other trades which are carried on in connexion with the canal basin between Warwick-crescent and Praed-street, besides being a continual menace to the health of the parish, are, during the summer months, a serious danger to the inmates of St. Mary's Hospital, and a source of annoyance to the Great Western Railway Terminus, which is so often visited by Her Majesty the Queen and the Ministers of the Crown; that the Committee, therefore, considers that no better memorial of the Victorian Jubilee could be devised in Paddington than for the Vestry to purchase the canal basin and adjacent property in order that this long-standing nuisance may be abolished and the site suitably utilised for residential and other purposes."

This scheme was supported at length by Mr. Mark Judge, and by Mr. Edmund Owen on behalf of St. Mary's Hospital.

NATIONAL HEALTH SOCIETY.

ON Friday evening, Jan. 28th, a meeting was held at the Paddington Baths to inaugurate a course of health lectures to be given by Dr. A. T. Schofield, under the auspices of the above Society. The meeting was largely attended and the audience representative of every grade of society, showing how general is the interest in the all-important subject of health. In the absence of Lord Randolph Churchill, who was detained in the House of Commons, the chair was taken by the Rev. J. C. Ridgway. Among the gentlemen on the platform were Sir Crichton Browne, Sir Spencer Wells, Dr. Priestley, Dr. Thorne Thorne, Mr. F. Treves, Rev. Dr. Clifford, and Mr. Shirley Murphy. After some introductory remarks by the chairman, Sir Crichton Browne addressed the meeting, dwelling on the importance of the work of the National Health Society in its efforts to prevent the origin and spread of disease by imparting knowledge through such lectures as Dr. Schofield's to all classes; Sir C. Browne also remarked that a special feature of these lectures would be the avoidance of technical terms and complicated expressions, and he went on to draw a favourable comparison between the physical condition of Englishmen and any other nation in the world.

Sir SPENCER WELLS pointed out that the average length of life was twenty years longer now than it was fifty years ago; this he attributed to efforts at sanitary reform, such as those of the National Health Society.

Mr. F. TREVES said the National Health Society was strictly a missionary society, inasmuch as it appealed to individuals; in this he was supported by

Dr. THORNE THORNE, who said it was essentially the work of ladies to go among the poor, and to impress upon them both personal and general sanitary principles.

The Rev. MARSHALL TREDDLE and Rev. Dr. CLIFFORD spoke warmly in favour of the scheme of the proposed Paddington Park.

Dr. SCHOFIELD then announced that the lectures would take place at the Baths, at 8 o'clock on the following evenings:—Feb. 1st: Prevention of Disease. Feb. 4th: Eating and Drinking. Feb. 8th: Use and Abuse of Stimulants. Feb. 10th: Mind and its Culture. Each lecture will be followed at 9 o'clock by an ambulance lecture and demonstration; either course may be attended separately or together.

After a vote of thanks to the Chairman the meeting separated.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5933 births and 3734 deaths were registered during the week ending Jan. 29th. The annual death-rate in these towns, which had been equal to 26·5, 24·1, and 22·8 per 1000 in the preceding three weeks, further declined last week to 21·1. During the first four weeks of the current quarter the death-rate in these towns averaged 23·6 per 1000, and was 0·7 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 11·1 in Derby, 14·9 in Birkenhead, 16·2 in Salford, and 17·4 in Wolverhampton. The rates in the other towns ranged upwards to 26·1 in Liverpool, 26·4 in Blackburn, 27·9 in Manchester, and 30·6 in Bristol. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 485 and 392 in the preceding two weeks, further declined last week to 371; they included 130 from measles, 76 from whooping-cough, 54 from scarlet fever, 41 from diarrhœa, 37 from "fever" (principally enteric), 33 from diphtheria, and not one from small-pox. No death from any of these zymotic diseases was registered during the week in Derby; whereas they caused the highest death-rates in Bristol, Preston, Leeds, and Huddersfield. The greatest mortality from measles occurred in Hull, Bristol, Leeds, and Huddersfield; from whooping-cough in Halifax and Huddersfield; and from scarlet fever in Sheffield, Bristol, and Salford. The 33 deaths from diphtheria in the twenty-eight towns included 22 in London and 3 in Manchester. Small-pox caused no death in London and its outer ring, or in any of the twenty-seven large provincial towns. Only 1 case of small-pox was under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease. The deaths referred to diseases of the respiratory organs in London, which had been 731, 591, and 531 in the preceding three weeks, further declined last week to 432, and were 128 below the corrected average. The causes of 90, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Portsmouth, Norwich, and Wolverhampton. The largest proportion of uncertified deaths were registered in Blackburn, Plymouth, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 29·9, 26·1, and 23·7 per 1000 in the preceding three weeks, rose again to 24·7 in the week ending Jan. 29th; this rate exceeded by 3·6 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 14·6 and 18·7 in Perth and Edinburgh, to 29·7 in Glasgow and

30·8 in Paisley. The 616 deaths in the eight towns last week showed an increase of 25 upon the numbers in the previous week, and included 19 which were referred to whooping-cough, 18 to measles, 15 to scarlet fever, 10 to diarrhœa, 7 to diphtheria, 6 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all 75 deaths resulted from these principal zymotic diseases, against 72 and 65 in the preceding two weeks. These 75 deaths were equal to an annual rate of 3·0 per 1000, which exceeded by 0·9 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 27, 26, and 20 in the previous three weeks, further declined last week to 19, of which 16 occurred in Glasgow. The 18 deaths from measles, of which 15 were returned in Glasgow, showed a marked increase upon the numbers in the previous two weeks. The fatal cases of scarlet fever, which had been 13 and 16 in the preceding two weeks, were 15 last week, and included 12 in Glasgow and 3 in Dundee. The 10 deaths attributed to diarrhœa, of which 6 occurred in Glasgow, exceeded those returned in the previous week by 3. The deaths referred to diphtheria and "fever" scarcely differed from the numbers in the previous week; diphtheria caused 5 in Glasgow and 2 in Edinburgh, and 3 of the 6 deaths from "fever" were returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 213, 181, and 165 in the preceding three weeks, further declined last week to 155, and were fewer by one than the number returned in the corresponding week of last year. The causes of 80, or nearly 13 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 36·2 and 33·2 per 1000 in the preceding two weeks, further declined to 28·2 in the week ending Jan. 29th. During the first four weeks of the current quarter the death-rate in the city averaged 32·0 per 1000; the mean rate during the same period did not exceed 22·7 in London and 22·4 in Edinburgh. The 191 deaths in Dublin last week showed a further decline of 27 from the numbers returned in the two preceding weeks, and included 6 which were referred to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 4 to whooping-cough, and not one to measles, diphtheria, diarrhœa, or small-pox. Thus the deaths from these principal zymotic diseases, which had been 21 and 13 in the preceding two weeks, were 14 last week; they were equal to an annual rate of 2·1 per 1000, the rates from the same diseases being 1·9 in London and 1·2 in Edinburgh. The fatal cases of scarlet fever, which had been 8 and 4 in the previous two weeks, rose again last week to 6; and the deaths due to fever and to whooping-cough showed a considerable increase upon the low numbers in the preceding week. The deaths both of infants and of elderly persons showed a further decline from the numbers in recent weeks. Five inquest cases and 5 deaths from violence were registered; and 47, or nearly a quarter, of the deaths occurred in public institutions. The causes of 35, or more than 18 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Surgeon-Major John Godfrey Rogers, M B, Medical Staff, has been appointed a member of the Distinguished Service Order for operations in the Soudan.

Surgeon General R. Lewer left England on the 27th ult. for Hong-Kong, to take over the appointment of Principal Medical Officer to the British troops stationed in the China command.

Staff Surgeon Parke left Alexandria on the 3rd inst., to join Mr. Stanley's expedition for the relief of Emin Pasha.

ADMIRALTY.—Deputy Inspector-General of Hospitals and Fleets Dugald McEwan, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet, and has been appointed Honorary Physician to Her Majesty, vice — Salmon, deceased.

The following appointments have been made:—Fleet Surgeon Henry C. Woods, to the *Victoria and Albert;* Staff Surgeon Alfred E. Delmege, to the *Osborne;* Staff Surgeon Richard J. Barry, to Portsmouth Dockyard, and Staff Surgeon Henry T. Cox, to the *Duke of Wellington*, additional.

ARTILLERY VOLUNTEERS.—5th (Isle of Wight, Princess Beatrice's) Volunteer Battalion, the Hampshire Regiment: Acting Surgeon T. O. Wiley resigns his appointment.—5th Surrey: Acting Surgeon W. A. F. Bateman to be Surgeon.

Correspondence.

"Audi alteram partem."

THE UNIVERSITY OF LONDON AND ITS NEW REGULATIONS.

To the Editors of THE LANCET.

SIRS,—Dr. Harris, in his letter in THE LANCET of Jan. 29th, has opened up a question of great import to those proceeding to graduate in medicine at the University of London. From the first appearance of the new regulations, in August of last year, we have anxiously awaited some higher power than ourselves to take up the cudgels on our behalf. It has been stated that the regulations in regard to the competition for honours at the Preliminary Scientific Examination (which are practically the same as those recently issued for the Intermediate Examination in Medicine) have worked satisfactorily, and from this it has been argued—upon very scanty data—that there will be a successful result from the new rules for the Intermediate Examination. But the difference between the two examinations seems to us most apparent. At the former the candidate usually presents himself before he has entered a medical school, and, the subjects being not strictly medical, he has no very strong wish to gain honours, and therefore does not run the risk of a failure. But, in the latter examination, there are subjects—anatomy and physiology—in which he will greatly covet honours; and yet, if he essays to secure them, he has to imperil his pass in the whole examination, and perhaps in the end will be only "recommended for a pass," in which case no record of his proficiency in the other subjects of the examination will be made. No student, after two years' work, will now be able to compete for honours without the misgiving that he may lose six months of his most precious time on account of his desire to acquit himself well at this very important examination. Is this the manner in which to encourage a high standard of work? If one paper only *must* be given, let it comprise a certain number of "honour" questions, which could be answered or not at the discretion of the candidates; or let there be a return to the old regulations. This letter, we believe, bears out the feelings of the majority of those who are now studying for their degree.

We are, Sirs, your obedient servants,

SIX UNDERGRADUATES OF THE UNIVERSITY OF LONDON.

Feb. 1st, 1887.

TREATMENT OF HYDROPHOBIA WITH THE POISON OF THE VIPER.

To the Editors of THE LANCET.

SIRS,—In my studies of hydrophobia I have been interested to observe how frequently of late curious methods of treatment have been proposed which have been considered original by those who advocated them, but which are simply resuscitations of old and discarded methods. I have not thought it important before to criticise any of these because they seemed to receive but little attention; but I have very recently seen in so many medical journals in America and in Europe recommendations of the employment of the sting of the viper as a preventive of hydrophobia, that it seems worth while to point out two facts: first, that the suggestion is by no means new; and second, that it has been tried and found wanting, and has been very properly abandoned.

More than a hundred years ago, in 1784, M. de Mattheis, surgeon to the King of Naples, seeing a dog said to be mad, and which went into a convulsion when water was offered it, bethought him of a viper which he had with him, and let it bite the dog's throat. The dog's head swelled immediately, the dread of water ceased, and the dog recovered.[1]

[1] See London Medical Journal, vol. v., p. 220, 1785.

In 1788, Fabbroni[2] reported the case of a man supposed to have hydrophobia, who was treated by the application of a viper to each of his legs. The patient seemed to be relieved for a moment, but died in half an hour.

These are the only cases I can now recall in which this astounding method of treating hydrophobia has been carried out, and it cannot be considered strange that it is not at present generally adopted. Other curious methods of treatment may be found described in many books on hydrophobia and rabies, and not a few are included in a paper on "The Treatmen of Hydrophobia Historically and Practically Considered," which I read before the American Medical Association in 1884, and which was published in the journal of this Association on Aug. 16th of that year. A reference to some of the books referred to, or to the paper just mentioned, would save some writers from error as to the originality or practicability of the methods which they propose for the treatment of this disorder.

I am, Sirs, yours respectfully,

Philadelphia, Dec. 25th, 1886. CHARLES W. DULLES, M.D.

RECENT PASTEURIAN DEATHS.

To the Editors of THE LANCET.

SIRS,—In the tables appended by your Paris Correspondent to his most interesting letter in your last issue, I find that Arthur Wilde who died at Rotherham after being treated at Paris is stated to have died of pulmonary disease. This is not correct. According to the account given in the *Rotherham Advertiser* the man was mortally ill before any symptoms of lung affection showed themselves, which occurred only a few hours before his death. It was stated that the remains of an old lung affection were found after death, but this could not have been the cause of death. His mother, who nursed him, who is a woman of great intelligence and the matron of an orphanage, assured me that he had nothing wrong with his lungs since he had an attack of pneumonia in his childhood, and that he had enjoyed excellent health afterwards. Her description of his case agreed with that given in the *Rotherham Advertiser*, and also with the description of the cases related by Professor Peter, especially in the commencement of the symptoms at the seat of inoculation—the intense prostration and some frothing at the mouth. These are not the usual symptoms of "congestion of the lungs," of which he is said to have died—indeed, the term is too vague for scientific use; there could have been no pneumonic consolidation, or that would have been mentioned. I observe by the table that M. Pasteur acknowledges the death of Smith, or Goffi, who died at St. Thomas's Hospital to have been due to hydrophobia, though at the inquest the question was left in doubt. It is reported that the rabbits inoculated from Goffi's spinal marrow died of rabies in seven days. According to the statement of M. Pasteur, made after the death of Louise Pelletier, this would prove that the inoculations were the cause of death, and would greatly strengthen Prof. Peter's case. At any rate the facts should be made known without delay, in order, on the one hand, to remove suspicion from M. Pasteur's treatment, or, on the other hand, to warn possible applicants against the risk it involves.

I am Sirs, yours truly,

JOHN H. CLARKE, M.D.

St. George's-terrace, Gloucester-road, S.W., Jan. 31st, 1887.

THE QUEEN'S JUBILEE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—Will you permit me to say a few words in reply to Mr. Cheyne's letter, inasmuch as I wish to correct a most important error which I am sure he has inadvertently made—viz., that the proposed hospital is only for the treatment of diseases of the "throat, ear, skin, eye, rectum, &c.," whereas he has omitted to mention "orthopædic surgery" in all its branches, which will, of course, include diseases of the "spine and joints." There is also connected with this institution a surgical appliance department, for the purpose of supplying various mechanical instruments to distressed persons on their obtaining the requisite number of letters from the subscribers to this department, and I venture to think that this branch (surgical appliance department) is most important and of absolute necessity to the poor, who abound in thousands in the immediate neighbourhoods, such as Chelsea, Fulham, &c., who cannot afford the time to obtain such articles from more distant institutions. It was this branch that induced the promoters to add to their programme most of the special organs for treatment, such as the throat, ear, skin, and eye, and to these they have since added a department for the treatment of disease of the nasal and pharyngeal cavities by the most advanced methods, as beyond the cost of a few inexpensive drugs, the same establishment and employés can be utilised for carrying out the latter, and the medical staff is, of course, honorary. With regard to the in-patients, though the number of beds is somewhat limited, there is every prospect of success of adding more, as a great many influential persons have already promised their support, but who do not and will not contribute to other charitable institutions, for the reason that they are not allowed any privilege with regard to the internal administration of such beyond a few patients' letters of recommendation. Another all-important item is that, by the establishment of this institution, it will afford opportunities to many medical men to become attached to a hospital, and so develop "latent talent which would otherwise lie dormant."

In conclusion, I beg to state that this hospital will be governed by a committee consisting of an equal number of lay and medical members, and that by strictly adhering to all matters of professional etiquette and economy the Queen's Jubilee Hospital will, I hope, be an ornament to the profession.—I am, Sirs, your obedient servant,

THE SECRETARY.

The Queen's Jubilee Hospital, Gloucester-terrace, Queen's-gate, S.W., Jan. 1887.

*** We are still decidedly of opinion that such a hospital is not needed.—ED. L.

HOSPITALS, THE SICK POOR, AND ALL ENGLAND.

To the Editors of THE LANCET.

SIRS,—In a kindly notice of Sir Andrew Clark's original proposal, formulated in a scheme over my signature in *The Times*, for affiliating every parish, congregation, village, or hamlet through its clergyman, minister, local doctor, or other representative, with the Hospitals Association, by the formation of a Hospital Society, you have misunderstood the proposal in one important particular. It is not desired, nor will it be attempted, to assume a kind of Providence over the provincial sick, and to invite them up to fill our London hospitals. On the contrary, the provinces will be left to look after their own sick poor and hospital administration, and all that we propose to do is to bring our intimate connexion with metropolitan and provincial hospitals to the aid of those who come in contact with the sick poor in all parts of England, with the object of locating difficult cases of disease or infirmity in the most suitable institution that may be available, always giving the preference to the one which is easiest of access to the particular case which needs such assistance. The scheme has excited very general interest; the conference in May, under the presidency of Sir Andrew Clark, promises to be a genuine success; and, as the proposal aims at aiding all the hospitals by exciting a wider interest in their work among all classes of the people, Sir Andrew Clark or myself will be very glad to hear, or to receive offers of co-operation, from any member of the profession who may wish to know more of our proposals and intentions.

I am, Sirs, yours truly,

The Lodge, Porchester-square, W. HENRY C. BURDETT.

THE MERE PRESENCE OF BLOOD IN THE PERITONEUM NOT A REASON FOR ABDOMINAL SECTION.

To the Editors of THE LANCET.

SIRS,—The novelty and importance of such a question as that dealt with in your leading article on pp. 227-228 induces me to trespass again on your extreme goodness to me in the matter of space in your columns.

I shall pass over the strong objections to the conclusions of Dr. Hunter's thesis as afforded by what we see in the human peritoneum, which proves conclusively that its

[2] Ibid., vol. ix., p. 69.

functions and its pathology differ most materially from those of the peritonea of rabbits and dogs. I wish only to point out that there is a vast difference between the mere presence of *blood* in the peritoneum artificially injected and the presence there of a *bleeding point*. It is the latter and not the former which demands prompt surgical interference, and in the presence of which the expectant treatment is absolutely criminal. No experiments on the lower animals can help us in deciding how to stop the bleeding from a ruptured tubal pregnancy, for no animal except the human is known ever to be the subject of such an accident.

I am, Sirs, yours truly,

Birmingham, Jan. 29th, 1887. LAWSON TAIT.

TYPHOID AND HYDRANTS.

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 8th there appears a paraphrase of a letter by Dr. H. Ward on Water Hydrants. I beg to point out that in publishing this Dr. Ward exceeds the bounds of professional etiquette. I, as medical officer of health for the Cowpen District, should have received some intimation of such "inquiry" and letter. I have refuted the assertions brought forward in this letter, which was published in several of the local papers, and written in a very offensive style. The Local Government Board requested a special report from me on the prevalence of typhoid during 1886, which I forwarded to them with the suggestion about the hydrants. They have taken no notice of the latter, and have asked me to report to them upon the carrying out of my recommendations. I attributed the epidemic of last year to wind-pressure upon the open outfalls of the sewers forcing the drain-traps. The epidemic of 1884 I proved conclusively to be caused by sewage pollution of one of the heads of the water-supply, which I condemned. I made seven quantitative analyses of the water and sent them to the Local Government Board, and they confirmed my decision.

I am, Sirs, yours truly,

R. LAING, M.R.C.S., L.R.C.P.,
Medical Officer of Health, Cowpen District.

Blyth, Northumberland, Feb. 1st, 1887.

RELIEVING THE DUKES.

To the Editors of THE LANCET.

SIRS,—The year before last 148 cases of typhoid fever were treated at St. Bartholomew's Hospital, and 118 at St. Thomas's; and it seems probable that at all the London hospitals 1000 cases of typhoid are treated annually, at a cost of about £16 each. Now, since the Metropolitan Asylums Board is required by law to take charge of all cases of fever arising among the London poor, it follows that by admitting these cases the hospitals are relieving, not the poor, but the rates; and, further, since it does not matter to a man how much of his total for rent and taxes is rent and how much taxes, the only effect of reducing rates is to increase rents, and the hospitals are really benefiting the landlords to the extent of £16,000 a year. A better course would be for the hospitals to contract with the Asylums Board for the care of their typhoid cases; they could do the work cheaper and better than the Board can do it for themselves, and the cases would be available for clinical instruction. Especially is this course advisable at the present time, when so many beds are standing vacant for want of funds—not less than 300, I am told, at Guy's and St. Thomas's together. I am, Sirs, your obedient servant,

Jan. 1887. X.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE PROPOSED CHILDREN'S HOSPITAL AT GATESHEAD.

THE proposal to have a Children's Hospital at Gateshead has been for some time before the public, and we all thought the matter had been settled as far as the project was concerned; indeed, a considerable sum has been collected, and a site for the building granted free by Lady Northbourne, when all of a sudden a letter appears in our local papers condemnatory of the whole thing, and from a strong but very unlooked for quarter—namely, the Rector of Gateshead, who contends that there is no need for a Children's Hospital, and that the proposal is both wasteful and extravagant. This, I think, will not accord with the experience of Newcastle hospital surgeons, for they know that Gateshead children and adults crowd the waiting-rooms of the various hospitals on this side of the water. The Rector's contention is perhaps true, but true only in one aspect—namely, that the Gateshead poor obtain medical aid in Newcastle which ought to be provided in their own town, and that the subscriptions received by the Newcastle hospitals from Gateshead are in no way commensurate, so that it could hardly be considered a commendable economy to ask the town's-people to continue to send us their sick poor, to the saving of pockets at their side of the river. Dr. William Mearns of Gateshead has put the matter very forcibly in a capital letter in answer to objections, and which has appeared in our local papers. He says: "The population of Gateshead is over 70,000, that 90 per cent. belong to the working classes, and at least 25 to 30 per cent. live constantly from hand to mouth, and are in consequence obliged to apply to some charity for medical relief when overtaken by illness. The only medical charity in Gateshead is the Dispensary, which has no accommodation for in-door patients. As a medical man residing and practising in Gateshead for some considerable time, and as one of the honorary staff of the Dispensary, I give my emphatic testimony of the *absolute need* of a great many of the children treated by the staff of that institution being removed from the miserable and wretched conditions under which they live and their polluted surroundings, so as to be treated with any chance of a safe and speedy recovery." Dr. Mearns adduces many other reasons in his forcible letter why Gateshead should have a hospital of its own.

THE LATE MR. G. M'COULL, SURGEON OF OVINGTON.

The late Mr. M'Coull of Ovington, Northumberland, died very suddenly of heart disease when in active practice last April, and his many patients and friends have erected a monument to his memory in the cemetery. The design is of obelisk form, with massive plinth, and its height is sixteen feet. The inscription is in bold Egyptian characters, recording his age, and that "the monument was erected by a large number of patients and friends as a tribute of respect and in remembrance of many kind services rendered by him."

TRIPLETS IN NEWCASTLE.

A few days ago a poor woman was delivered of two girls and a boy by Dr. Farquharson, of Westgate-road. It may be mentioned that this is the third case of triple birth taking place in the Westgate district of Newcastle within the last eighteen months—Mr. John Foggin, a young surgeon here, if I mistake not, having attended two of these cases, which followed each other very closely.

Newcastle-upon-Tyne, Feb. 2nd.

EDINBURGH.

(From our own Correspondent.)

PROFESSOR HAMILTON AT THE ROYAL SOCIETY.

AT the last meeting of the Royal Society Professor Hamilton of the University of Aberdeen read a paper entitled "The Conducting Paths between the Cortex of the Cerebrum and the Lower Centres in relation to their Function," and exhibited a large number of sections and drawings illustrating his views on the subject. He defined in the first place the generally received view of the corpus callosum as a commissural structure. In contrast with this he stated the opinion that such is not the case, but that it is constituted by strands of decussating fibres derived from the cortex of either side and passing to the basal ganglia of the opposite half of the cerebrum. The apparent tendency to turn upwards at the lateral extremities of the corpus callosum depends on the necessity for the fibres to pass over the roof of the lateral ventricle before turning downwards to divide into the inner and outer capsules, which Dr. Hamilton describes as their real destination. Having referred to Foville's views on this point, which closely coincided with his own, Dr. Hamilton

laid down three postulates which must be fulfilled before his view could be proved beyond dispute. They are, first, a naked-eye demonstration by means of the scalpel, showing the course of fibres that he indicates; second, the same shown by transverse vertical sections of the brain; third, a microscopical demonstration that the fibres of the inner capsule and those of the corpus callosum are coterminous. All these, he claimed, were established by the specimens displayed, the third point being most difficult of demonstration, since the fibres do not run transversely, but obliquely, either from behind forwards or from before backwards, in their passage across the corpus callosum from the cortex of one side to the basal ganglia of the side of the cerebrum.

A NEW CENTRE WITH A CORRELATING FUNCTION.

In referring to the formation known as the branching neuroglia, Professor Hamilton stated his opinion that it is a delicate plexus of nerve fibrils. It is present in the grey cortical matter, also in the white matter of the centrum ovale; and a specially dense collection of these fibrils is found internal to the upper part of the inner capsule in the vicinity of the lenticular nucleus. This Professor Hamilton proposes to call the "plexiform nucleus." He assigns to it a function of great importance as a correlating centre.

THE FUNCTION OF THE THALAMUS OPTICUS.

Many of the fibres passing across the corpus callosum end in the thalamus opticus, and form a large part of that body, placing it in direct communication with the cortex of the opposite hemisphere. It has, however, little or no direct connexion with parts below, none whatever through the peduncles, as has been thought. Its main relations in other directions are those which it bears to the optic tracts, with which it is continuous. From these facts Professor Hamilton draws the inference that the optic thalamus is a communicating centre of association, relating other functions to that of sight; through it nearly all the special sense centres receive their education, their functions being here correlated with visual impressions. In support of this view, and of the anatomical details upon which it is based, reference was made to cases of destruction of the corpus callosum, in which it is found that education of the higher centres does not take place, since they are cut off from the influence of the optic thalamus. Where, however, the corpus callosum is congenitally absent, not having been destroyed, decussation takes place lower down than its normal site, and education of the higher centres is possible, and in fact takes place. When education is complete, the function of the corpus callosum as a channel for transmitting educating impulses falls into abeyance; this explains why injury to the corpus callosum late in life does not result in idiocy, as it does when occurring during childhood.

THE RELATION OF NERVE CELLS AND NERVE FIBRES.

As the result of continuous observations upon this point, Dr. Hamilton has come to doubt whether nerve fibres ever enter nerve cells, unless perhaps in the motor areas. He thinks the fibres form a kind of capsule around nerve cells, but do not become actually continuous with them. In regard to this point, it was stated by Dr. Bramwell, in the discussion which followed the paper, that in the anterior horn of the spinal cord there is direct continuity between the nerve cells and the delicate fibrils of that region, the latter being in turn aggregated into fibres. The same probably holds true of motor areas of the cortex; and if there, presumably also in sensory areas. Some such arrangement is demanded by what is known of the conduction and insulation of nerve impulses, and although, as stated by Professor Hamilton, there seems to be conduction apart from continuity in the ear in the relation of the sensitive to the conducting structures, yet in the eye it is found that actual continuity exists between the rods and cones and the nerve fibrils which convey visual impressions. Dr. Bramwell also criticised Professor Hamilton's paper in regard to the views put forth relative to the corpus callosum, and the plexus of nerve fibrils supposed to have a correlating function. Since the object of a nervous mechanism is to conduct as directly as possible nerve impulses to the seat of their realisation, such a plexus interpolated in the path could only complicate the matter very seriously. On the morning following the discussion Professor Hamilton gave a demonstration of his large collection of specimens in the hall of the Royal Institution, at which a large audience was present.

THE EDINBURGH PATHOLOGICAL CLUB.

This new medical society, formed for the informal discussion of medical and pathological topics, has already attained to vigorous vitality. At its second meeting, held in January, there was a plethora of interesting communications, and the limited number of members who form the club speak highly in praise of its efficiency as an arena where new ideas may receive such treatment as fits them for a wider field of battle, or devitalises them once for all.

Edinburgh, Feb. 2nd.

GLASGOW.

(From our own Correspondent.)

ANNUAL MEETINGS.

THE time for the annual meetings of most of the charitable institutions of the city has again come round. One of the most important was that of the

ROYAL INFIRMARY.

The meeting was held a few days ago, when it was reported that the number of patients treated in its wards during the past year was 4834, as against 4943 in the year preceding, and 5300 in 1885; taking the average of five years, the number of patients availing themselves of in-door treatment had fallen off to the extent of about 10 per cent. This seems to indicate a less amount of ill-health or serious accident in Glasgow during the past twelve months than for several years before. As to death-rate, excluding deaths occurring within forty-eight hours of admission, it was found to be 6·6 per cent., as against 7·5 per cent. in 1885. Those treated in the dispensary numbered 39,250, a decided increase on previous years. This, however, is understood to represent the number of consultations, and not that of new patients. The infirmary paid its way throughout the year, and put £265 to capital account. The meeting was rendered particularly interesting and lively by an account given by an infirmary champion of the manner in which its medical school had been founded. Prominence was also given at this meeting to the infirmary's proposal that the school should be erected into a college of Glasgow University—a plan which, if carried out, would probably relieve the directors of a very burdensome white elephant.

GLASGOW EYE INFIRMARY.

At the annual meeting of this very deserving charity it was reported that the number of cases treated during 1886 was 13,701; of these, 983 were in-door patients. This infirmary has recently been enlarged by the erection of new buildings and alterations made in the old one; it has now 104 beds, with air space of 1430 cubic feet for each. The income for the year nearly balanced the expenditure.

SICK CHILDREN'S HOSPITAL.

During 1886 the cases admitted to this hospital numbered 458, the highest total since the hospital was opened four years ago. None of the wards had been closed on account of infectious disease during the year. The mortality, after deducting deaths within twenty-four hours of admission, was 6·8 per cent. The directors intend very shortly to proceed to the erection of a dispensary. The income for 1886 fell short of the sum expended by £140.

THE LUNACY LAWS.

A somewhat unusual case was before Sheriff Rutherfurd of Edinburgh a few days ago, a gentleman who had been detained in Morningside Asylum on the certificates of Drs. Littlejohn and Clouston having lodged a *caveat* to stay proceedings. After the case had been certified, the Sheriff said he thought it was certainly a matter of great regret that the Legislature had devolved upon a single judge, sitting alone, whose judgment was by statute to be final and conclusive, without the intervention of a jury, to state what the mental condition of a party was. The question before him now was the present state of mind of the gentleman in question and whether he was in such a state as to threaten danger to himself or others. The judge did not think it was a bad case, but as a man of common sense, and one accustomed to weigh evidence, he could come to no other conclusion than that the unfortunate gentleman was at present in a state of unsound mind, and that while these delusions continued, he might at any moment become excited and dangerous to himself or

others. He (the Sheriff) must, therefore, act upon that, and grant the prayer of the petition. The patient was accordingly conveyed back to Morningside Asylum, it being understood that he might at any time obtain the intervention of the Inspectors of Lunacy to inquire as to his state of mind.

DUBLIN.

(From our own Correspondent.)

SIMPSON'S HOSPITAL.

BY the death of Dr. Henry Kennedy, a vacancy for a physician to this institution has arisen, and it will probably be filled up by the trustees at their quarterly meeting this month. For the appointment, the emoluments of which are £25 per annum, Drs. C. H. Robinson, J. W. Moore, and H. C. Tweedy are candidates.

BRITISH MEDICAL ASSOCIATION (DUBLIN BRANCH).

At the annual meeting of the Branch held last week, the inaugural address was delivered by Dr. Grimshaw, Registrar-General for Ireland. In the course of his address, he said that we had high political authority for stating that the health of the people should be the first care of a government, and if this was so, and if *sanitas sanitatum omnia sanitas* was ever to become a reality, and not merely the motto for the professors of a "policy of sewage," it was manifest that their profession must take a highly important position in the fabric of the State. Did their profession occupy such a position? He was afraid the answer must be that it did not, either in this or in any other country that he was aware of. Many of those who had not given sufficient attention to the question thought that these faults in their profession were owing to defects inherent in the profession itself. This was by no means the case. The fault mainly lay with the State. The medical profession had two principal relations to the public—viz., those comprised under the heads of the prevention of disease and the cure of disease. While the duties under the former head have to be mainly performed towards the public in its collective capacity, those under the latter have to be mainly rendered by individual members of the profession to individual members of the public. While the relative scope of preventive and of curative medicine might thus be respectively defined in general terms, it was clear that preventive medicine must often be practised individually—as, for instance, when they advised as to family hygiene and healthy homes. Curative medicine might also be practised collectively where the Poor-law medical officer or the medical officer of a hospital or public institution treats large numbers of sick on an organised system of medical attendance. When viewed from a State standpoint, this crossing of the functions of the profession in its private and public capacities presented difficulties which must necessarily complicate the relations between the State and the profession. These difficulties were not insurmountable, though their existence must be admitted by all persons, and, indeed, a considerable number of them had been surmounted slowly and by a sort of quiet progressive development through the public medical system of Ireland. The annual dinner of the Branch took place in the evening, at the College of Physicians.

MERCER'S HOSPITAL.

At the Southern Divisional Police-court, Dublin, last week, Dr. Kennedy, resident surgeon to Mercer's Hospital, was charged by Mrs. Farrell with having accelerated the death of her husband, Joseph Farrell, by assaulting him while a patient in that hospital in August last. Evidence of a most contradictory kind was given, and after several adjournments it was ultimately decided to have the matter settled before a jury. Dr. Kennedy has therefore been returned for trial at the Quarter Sessions, which will be held this month, his own security in £100 being taken for his appearance.

Dr. Swan, of Monaghan, has been elected medical officer to Monaghan dispensary district, in the vacancy caused by the decease of Dr. William Woods.

There will be a fancy and full-dress ball on the 9th inst., in aid of the funds of St. Michael's Hospital, Kingstown.

Dublin, Feb. 1st.

BELFAST.

(From our own Correspondent.)

BELFAST HOSPITAL FOR SICK CHILDREN.

FROM the medical report presented at the annual meeting of this charity (Mr. Dunville, D.L., High Sheriff of co. Down, in the chair) I learn that there were 329 in-patients and 8694 out-patients during the year 1886. During the present session there are the usual cliniques, which are attended by the senior students of the medical school. In accordance with one of the rules, a meeting was held on Jan. 19th, when Dr. M'Caw, one of the physicians, was re-elected for a period of four years. A letter was read from the Hon. R. J. O'Neill, M.P., the president of the hospital, urging strongly the claims of the Convalescent Fund, by which children are sent to the country and seaside for change of air after having been in the hospital. The financial statement showed that the income was slightly in excess of the expenditure.

ULSTER EYE, EAR, AND THROAT HOSPITAL.

At the annual meeting of this hospital it was reported that during the past year 1789 patients had attended, and of these 180 were intern. The total receipts for the past year were £550 6*s.* 5*d.*, and the expenditure £541 14*s.* Dr. W. A. McKeown (honorary surgeon of the hospital) mentioned in his report that upwards of 500 cataract operations had been performed since the opening of the hospital, the patients being from all parts of the province. He alluded to the absurd superstitions that still exist in regard to diseases of the eye, and said that every year a number of eyes were lost through ignorance and so called "popular remedies." Dr. McKeown referred with just satisfaction to the fact that it was in this hospital first that the magnet was employed to remove pieces of metal from the eye in 1873. Three years afterwards the practice was adopted by Prof. Hirschberg (Berlin), and now it is a settled practice all over the world. In May, 1884, Dr. McKeown originated his new operation for cataract, by which patients are prevented waiting, as it matters little whether a cataract is "ripe" or not for this method to be used. This institution is becoming more and more self-supporting, as for the last five years the contributions of patients (£2070 2*s.* 6*d.*) are in excess of those for the previous eleven years by £238 11*s.* 8*d.*

SAMARITAN HOSPITAL.

The report read at the annual meeting of this hospital showed that there were 148 intern and 974 extern patients during the year. The committee expressed the hope that some benevolent person will see his way to build a wing to the present building suitable for a lying-in department.

BELFAST MAIN-DRAINAGE SCHEME.

A report has been prepared by the Lagan Pollution Committee in which they point out what they deem defective in the drainage scheme of our Town Council. They object that as to the high-level main sewer proposed to be constructed no special system of ventilation is provided, and they believe the ordinary street ventilation gratings would constantly be giving off poisonous gases. Further, the fall in this sewer (1 inch in 120 feet) is so slight that the committee allege it will become a sewer of deposit. Again, no provision is made by this scheme to drain the Falls district, one of the most densely populated parts of the town, and all the sewage of this must continue to find its way into the Lagan. After stating other objections, the committee say they urged upon the Town Council the adoption of the scheme proposed by a gentleman named Gilliland. Such a scheme could be carried out for £18,000. It is not an alternative but a necessary adjunct to the main-drainage scheme, and as absolutely necessary to secure the purification of the Lagan. The works, the committee think, could be carried out simultaneously with the erection of the new Albert Bridge, and would entirely abate the Lagan nuisance, and convert the river above this bridge into a highly ornamental sheet of water. In conclusion, the committee think that the main-drainage scheme would entail an enormous expenditure without any corresponding advantage. At some of the recent meetings of the Ulster Medical Society papers were read on the proposed drainage schemes, and a very interesting discussion took place. There can be no doubt that Belfast, from its peculiar situation and from the great rapidity of its growth, is a town for which it is extremely difficult to construct a

thorough system of drainage, but it is to be hoped the problem in time will be solved to the satisfaction of all parties.

BELFAST ROYAL HOSPITAL.

I am glad to say that the treasurer has received over £1000 in aid of a special fund to pay off the debt incurred during the year ending Aug. 31st, 1886.

Belfast, Feb. 1st.

PARIS.

(From our own Correspondent.)

SANITARY STATISTICS.

THE last number of the *Bulletin Hebdomadaire de Statistique Municipale* gives a retrospect of the sanitary condition of Paris during the past year, from which it appears that the principal epidemic diseases have been less frequent. Typhoid fever has caused 1009 deaths, or 45 per 100,000 inhabitants, which is one of the lowest percentages of the last twenty-five years. In 1885 there were 59 deaths per 100,000 of the population. The deaths for the first and second quarters of 1886 numbered 212 and 171 respectively. In August the mortality increased to 148 for the month. Since then it has diminished, although it remains higher than during the first half of the year. Small-pox, as usual, capricious in its evolutions, has caused in all 213 deaths, or 9 per 100,000 inhabitants, being 97, 73, 24, and 19 for the respective quarters. Measles shows a tendency to increase in frequency year by year, but the mortality for 1886 is less than that of the preceding two periods. From 1865 to 1869 the average was 32 deaths per 100,000 inhabitants. From 1872 to 1876 it was 35; from 1877 to 1881, 39. In 1880 it was 44 per 100,000 of the population; in 1883, 49; in 1884, 67; and in 1885, 68. During the year 1886 there have been 1238 deaths, giving a mortality of 55 per 100,000. Scarlatina has been three times as fatal as in 1882 and 1883, when there were 6 deaths per 100,000 of the population; twice as fatal as in 1885, when the death-rate for the same number of people was nine. In 1886 there were altogether 410 deaths, being 18 per 100,000 inhabitants, the maximum (67) being in June. Diphtheria has increased in frequency in Paris, during the last twenty years in the same way as measles. For 100,000 inhabitants the mortality from 1865 to 1869 was 43 deaths. From 1877 to 1883 it increased progressively to nearly 100. In 1884 it was 93; in 1885, 79; in 1886 there were altogether 1628 deaths, representing 72 per 100,000 of the population.

TYPHOID POSSIBILITIES.

In connexion with the above statistics, it must be remarked that if the health of Paris has appeared more satisfactory during the past twelve months, the improvement is due to providential causes rather than to any attention on the part of the authorities to sanitary matters. All Parisian residents are more or less protected against typhoid by acclimatisation in an attenuated typhoid atmosphere, and the chief victims to the disease are generally visitors or new-comers. When, on account of some unusual influx of strangers, or for some less evident atmospheric or telluric reason, the typhoid miasm increases in virulence and the "directing classes" suffer, there is always a talk of sanitary improvements, which are forgotten as soon as the alarm is over. In respect to typhoid, the health of Paris has probably benefited by the general commercial stagnation, which has made the past year a bad one for hotel-keepers. The mortality has been no doubt restricted in a great measure by the absence of the potential victims. The laws of supply and demand must also hold good in bacteriology, and the poorer classes, having been more or less decimated in previous years, have necessarily contained a smaller number of individuals in a state of receptivity. To predict the sanitary possibilities for the coming year would be somewhat hazardous, but there are immediate indications of epidemic and portents, if not in the air, in the water, not without their meaning. Paris is supplied with drinking water from the Vanne, the Dhuys, the Seine, and the Ourcq. That of the first two is of good quality, whereas the water of the Seine and the Ourcq, to quote the opinion of M. Léon Collin, is "hot in the summer, cold in the winter, disturbed and muddy at all times, and contaminated by waste product and human excreta." At the present moment the supply from the Vanne is temporarily suppressed on account of repairs to the aqueduct which conveys it to Paris, and the districts in which it is usually supplied are now furnished with typhogenic water from the Seine. It is a matter of general observation that enteric fever has been on the increase during the last few weeks, the mortality from this cause having been higher last week than during the preceding one. The distribution of bad water to those unaccustomed to it is not likely to check the morbidity; and visitors to Paris, to whom the risk is greatest, will do well to adopt simple precautions against infection. Boiled filtered water is not easily procurable in hotels, and the best plan is, perhaps, to use genuine mineral waters. The familiar syphon is not to be trusted, being often filled from an impure source.

THE TREATMENT OF TYPHOID.

Professor Grancher, following in the steps of Professor Bouchard, gives the following directions for the treatment of enterica: Four principal indications result from the pathogeny of the disease—general antisepsis, intestinal antisepsis, antipyretics, and nourishment. As soon as the disease is suspected, M. Bouchard commences by the administration of a purgative which is renewed every three days. For the first four days, calomel is given in doses of one-third of a grain every hour as a general antiseptic. Intestinal antisepsis is secured by the administration of vegetable charcoal in powder (100 grammes), iodoform (1 gramme), and naphthaline (5 grammes). This is mixed with 50 grammes of peptone and 200 grammes of glycerine, which constitute the basis of the alimentation, and the black magma so formed is taken by tablespoonfuls every two hours. The bowels are washed out night and morning with carbolic acid and water (1 in 1000), each enema measuring one pint. From the beginning of the disease the patient takes eight baths a day until recovery, but instead of using water at a much lower temperature than that of the body, the difference is only of two degrees Centigrade, 38°, for instance, of the temperature is 40°. The bath is then cooled by a tenth of a degree per minute to 30°, but never below, so avoiding all shock and spasm. When the temperature remains high, notwithstanding the baths, quinine is recommended, 30 grains being given in four doses, in the course of two hours, and repeated after an interval of three days. Besides the glycerine and peptone associated with the antiseptics the only other food allowed is bouillon, boiled with barley, and as a drink lemonade with a little wine. Should complications occur, they should also meet with a vigorous reception. Extreme or prolonged delirium is to be treated by opium, and peritonitic symptoms by ice or mercurial ointment. Of 266 patients so treated by M. Bouchard 31 died, giving a mortality of 11·7 per cent. The average duration of the disease was nineteen days, and relapses took place on the whole number in 20 per cent., and during the latter period in 10 per cent. of the cases. These figures speak for themselves, and there is one point about M. Bouchard's method beyond contestation. It is certainly thorough. But if, as it would seem, the patient spends thirteen hours in the bath and undergoes fifty or sixty other visitations of different kinds in the course of the twenty-four hours, it is difficult to see what time remains for repose.

PASTEURIANA.

The *Temps* of Tuesday evening gives the following particulars of another death after the preventive treatment:—M. Bergé, living at Bordeaux, was bitten five or six months ago by a mad dog, and went to Paris, where he was submitted to M. Pasteur's treatment. On his return to Bordeaux he appeared to be quite cured, but two days ago symptoms of rabies set in, and it became necessary to send the patient to the St. André Hospital, where he died yesterday. The post-mortem examination was made this morning by M. Peter, dean of the Faculty of Medicine, who declined to give any opinion, but who has made with the medulla inoculations on rabbits. The results of these inoculations will show whether M. Bergé did or did not die of rabies. M. Peter, in a recent clinical lecture, stated that a child had died of rabies at Sceaux after the intensive treatment. *Per contra*, at the Academy of Sciences, the statistical account, published in your last issue, was received with enthusiasm, and it was decided, on the proposition of M. Bertrand, that a reprint of M. Vulpian's note should

be made by authority of the Academy *(sous l'estampille de la compagnie)*, and distributed to all the French and foreign committees now collecting subscriptions for the Pasteur Institute. This has already been done, and the note forms a small pamphlet in quarto, with the seal of the Academy engraved on the title page—a broad hint to future candidates for the honour of membership. At the Academy of Medicine a note was read from M. Cantini, of Naples, giving details of his experience of the method, which are entirely favourable, none of the patients having as yet died. At the Société de Biologie, M. Gameleva related sixteen cases of rabies in which paralytic symptoms had occurred, although no preventive inoculations had been performed, thus showing that the paralytic form of the disease is not necessarily *canino-experimental*. A similar case was mentioned by M. Laborde.

THE LATE DR. GALLARD.

The death is announced of Dr. Gallard, physician to the Paris hospitals and member of the Academy of Medicine. Dr. Gallard was a practitioner of great merit, and although not officially connected with the School of Medicine, he was the teacher of gynæcology, whose wards were the most frequented by students. His loss will be the more felt in this respect in that there is no chair of women's diseases at the Faculty. Dr. Gallard was also senior physician to the Orleans Railway, and in this capacity rendered great services in medical organisation during the siege, for which he was made an officer of the Legion of Honour. The death is also announced of another gynæcologist, Dr. Nonat, who, having far exceeded the usual span of life, had dropped in a certain measure out of the memory of the present generation. Middle-aged men still remember him at the Charité, where his practice chiefly consisted in leeching the uterus. Nonat was a nephew of the great chemist, Thénard.

A NEW DENTIFRICE.

The *Gazette Hebdomadaire* contains an article by M. Paul Vigier on the Use of Steatite as a Tooth Powder. Many years back M. Vigier discovered that the addition of powdered talc to water prevented the deposit of calcareous salts in boilers. Applying this fact to dental therapeutics, M. Vigier has devised a new dentifrice, which, he says, prevents the formation of tartar. The formula is as follows:—Powdered steatite, 60 grammes; desiccated alum or cream of tartar, 5 grammes; powdered cochineal, 10 grammes; essence of peppermint, 20 drops. Any other perfume may of course be substituted.

Obituary.

HENRY KENNEDY, M.B., M.R.I.A.

WITH regret we record the death of a well-known Dublin physician, who died on Jan. 24th at his residence in Rutland-square. Although in his seventy-sixth year, Dr. Kennedy was of very active habits, and was possessed of a wonderful amount of vitality considering his advanced age. He obtained his degree in Arts and Medicine at the University of Dublin in 1839, and was elected a Fellow of the College of Physicians ten years afterwards. Connected for some years as visiting physician to Cork-street Fever Hospital, he made great use of the valuable material at his command; and a good deal of the experience in fever and diseases of children, for which he was so justly celebrated, was obtained at this institution. He was also physician to Simpson's and the Whitworth Hospitals. The deceased was a constant attendant at the various medical societies, and proved himself an apt and fluent speaker in the discussions which ensued on the various papers read before the members. He was a prolific writer, the following being only a few of the numerous papers he contributed to medical literature:—"Essay on Fatty Heart," "On Slow Pulse in Fever," "On Scarlatina," "On some of the Forms of Paralysis which occur in Early Life," "On the Coexistence of Functional and Organic Disease of the Kidney," "On Hydrocephalus and its Treatment," &c.

RICHARD FORTH SNAPE, F.R.C.S. ENG.

WE regret to record the death of Mr. Richard Forth Snape, which occurred at his residence, Chorley New-road, Bolton, on January 13th. Mr. Snape took up his abode in the town about forty years ago, and some years afterwards became for a time one of the honorary surgeons to the infirmary and dispensary. He early took an interest in the question of the health and long hours of employment of children and young persons in cotton mills, and was instrumental, along with several other gentlemen, in promoting a demonstration of the inhabitants of the town in favour of petitioning the Legislature to pass an efficient Bill for shortening the hours of labour in factories. At the meeting at which this resolution was adopted, and which was held on Jan. 25th, 1847, Lord Ashley (afterwards Earl of Shaftesbury) was present. Mr. Snape had for many years up to his decease held the post of certifying factory surgeon. He was a staunch Conservative and an ardent member of the Church of England, but abstained from any active share in public affairs, his professional duties requiring most of his time and attention, being consulted by many of the influential families in the town and neighbourhood. As a practitioner he was judicious and philosophical in his views, ever cautious to keep himself informed of the most recent discoveries. Few men have possessed to so marked an extent as he did the instincts of a doctor, or have loved their profession more; his kindliness of heart and unaffected simplicity of character had won for him the love and esteem of a large circle of friends, many of whom will continue to think of him with affection and tender regret. He leaves a widow and three sons.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—Th list of new Members was given in our last issue, page 244.

The following were admitted Licentiates on Jan. 27th:—

Andrews, Archibald George, Poplar Hospital, East India-road.
Ballance, John Des Carrières, Harley-street.
Barlow, Charles, Aspinall-street, Prescot.
Barr, George Arthur, Newport, Isle of Wight.
Barton, Edwin Alfred, University Hospital.
Belson, George de Veulle, Albion-street, Hyde-park.
Blenkinsop, Alfred Percy, Hilldrop-crescent, Holloway.
Bostock, Robert Ashton, South Camp, Aldershot.
Boxall, Frank, Oakley-square.
Bradbury, Harvey Kimmersley, Hill's-place, Regent-circus.
Brodie, Frederick Carden, Middlesex Hospital.
Browne, Edward Granville, Bernard-street, Russell-square.
Bulstrode, Herbert Timbrell, St. Thomas's Hospital.
Butler, Henry John, New Wortley, Leeds.
Calthrop, Lionel Claude, Cheal, Hornsey-lane.
Calvert, John Telfer, Osborne-terrace, Clapham-road.
Calvert, William Dobree, Sewardstone-road, Victoria-park.
Clark, Brown, London Hospital.
Connolly, Frank Glynn, London Hospital.
Cosens, William Burrough, Philpot-street, Mile-end.
Cox, Alfred Harold Lissant, Millman-street, Bedford-row.
Crook, Herbert Evelyn, Northfleet.
Cross, Robert George, Compton-terrace, Highbury.
Dalgleish, John William, West-parade, Newcastle-on-Tyne.
Debenham, Horace Allan, Stepney.
Downing, William, Varna-road, Birmingham.
Downman, Charles Frederick, Newmarket.
Drinkwater, Charles, King's College Hospital.
Duncan, Horace, Henrietta-street, Covent-garden.
Duncker, William Reinhold, Finsbury-park-road.
Edye, John Simpson, Army Medical Staff, Colchester.
Evelyn, William Arthur, Vincent-square, Westminster.
FitzGerald, Gerald Eustace, Shrewsbury-road, Westbourne-park.
Fraser, Paul Wilkes, Gainsford-street, Kentish-town.
Furnivall, Bryan, St. Bartholomew's Hospital.
Garrould, Walter Robert, Willesden-park.
Hall, Herbert Strange, Bradshawgate, Leigh, Lancashire.
Haslip, George Ernest, Whitehall-place, Gravesend.
Helsham, Hugh Paul, Charlwood-street, Pimlico.
Holloway, Samuel Frederick, Osman-road.
Husbands, Harold Wessen, Wellington-park, Clifton, Bristol.
Iredale, Thomas, Midland-road, Headingley, Leeds.
Jarvis, William Charles, Southampton-street, Camberwell.
Jeaffreson, John Leslie, Park-crescent, Stoke Newington.
Johnson, John George, Lansdowne-road, Clapham.
Joly, Joseph Antoine Maurice, Oppidans-road, Primrose-hill.
Jones, John Owen, Cambridge-terrace, Islington.
Kitson, Francis Parsons, Maitland-park-villas, Haverstock-hill.
Knaggs, Francis Henry, Disraeli-road, Putney.
Lansdale, William, Chelsham-road, Clapham.
Loxton, William Arthur, Bath-row, Birmingham.
McKague, William Henry, Burton-crescent.
McShane, George, Shaftesbury-road, Southsea.
Mann, Harold Edward, West Cromwell-road, Kensington.
Martin, Frederick George Sturridge Goodall, Haverstock-hill.
Maxwell, Matthew, Hunter-street, Brunswick-square.
Miller, Frederick Richard, Frederick-street, Gray's-inn-road.
Moore, James, Gotha-street, Victoria-park-road.
Morgan, George Frederic Elliot, Southwark-bridge-road.
Morgan, William Vaughan, Glen Marteg, Streatham-park.
Mould, William Thomas, Fairholme-road, Kensington.
Moxham, Marcus Campin, Crescent-street, Thornhill-square.
Nihill, John Edward, Newcastle-on-Tyne.
Ord, George William, Streatham-hill.

Pedley, George Aston, Terrace, Camberwell
Peeke, Harold Samuel, Sinclair-road, Kensington.
Pepler, William Herbert, Redburn-street, Chelsea.
Pinniger, Charles Lever, Blessington-road, Lee.
Powell, Edgar Elkins, Stoke-road, Guildford.
Quiller, Charles Turner, Orlando-road, Clapham.
Roalfe-Cox, Walter John, Hermitage, Streatham.
Rosenau, Albert, Bath, Kissingen, Germany.
Sharman, John Schütze William Edward, Oak Villas, Norwood.
Stott, Hugh, Carlton Villas, Colney Hatch.
Strickland, Percy Charles Hutchison, Montague-street, Russell-square.
Thane, Edgar Herbert, Montague-street, Russell-square.
Thompson, Stephen Robert, Glenmore House, Dulwich.
Trow, Charles, Endsleigh-street, Tavistock-square.
Tweed, Edward Reginald, Upper Brook-street, Grosvenor-square.
Vidler, Albert Edward, Clapton-square.
Wale, George, West Kent Hospital, Maidstone.
Walker, Alfred William Hinsley, Hampden Club, St. Pancras.
Wheeler, Humphry John, Abingdon Villas, Kensington.
Wilbe, Richard Haydock Wiffin, Finchley-road.
Wilson, William, Hollies, Cleveland-road, Wanstead.
Wreford, John, Clapham-road.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on Jan. 25th:

Belson, George de Veulle, L.R.C.P. Lond., Albion-street.
Brodie, Frederick Carden, L.S.A., Wootton Bridge, Isle of Wight.
Calvert, John Telfer, L.R.C.P. Lond., King's-road, Rochdale.
Calvert, W. Dobree, L.R.C.P. Lond., East Bergholt, Colchester.
Holloway, Samuel P., L.R.C.P. Lond., West Kensington-park.
July, Antoine Maurice, L.R.C.P. Lond., Opsidans-road.
Jones, John Arnallt, L.R.C.P. Lond., Fort Talbot, Glamorgan.
Key, David Thomas, L.S.A., Trinity-square, Borough.
Mann, Harold Edward, L.R.C.P. Lond., West Cromwell-road, Kensington.
Parry, Thomas Fox, L.K.Q.C.P.I., Ling-street, Liverpool.
Sidebottom, Ralph Bennett, L.R.C.P. Lond., Manor House, Mo tram.
Slater, William Arnison, L.S.A., Green-lane.
Vidler, Albert Edward, L.S.A., Magdale House, Rye, Sussex.
Wheeler, Humphry John, L.R.C.P. Lond., Abingdon Villas.

Admitted on the 26th ult.:—

Barr, George Arthur, L.R.C.P. Lond., Milner-street.
Barton, Edwin Alfred, L.R.C.P. Lond., Lexham-gardens.
Bindley, Robert Alfred, Highbury-hill.
Carvalho, Alberto Pedro de, L.S.A., Lidlington-place, Ampthill-square.
Copeman, Sydney Arthur Monckton, M.B. Cantab., York-road.
Debenham, Horace Allan, L.R.C.P. Lond., Heath House, Stepney.
Haslip, George R., L.R.C.P. Lond., Whitehall-place, Gravesend.
Husbands, Harold Wessens, L.R.C.P. Lond., Wellington-park, Clifton.
Jarvis, William Charles, L.S.A., Southampton-street.
Jeaffreson, John Leslie, L.R.C.P. Lond., Park-crescent, Stoke Newington.
Lyle, Charles Conway Vacey, L.R.C.P. Lond., Maryland-road.
Malpas, James, L.R.C.P. Lond., H.M. Dockyard, Pembroke.
Martin, Frederick George Sturridge Goodall, L.R.C.P. Lond., Haverstock-hill.
Morgan, William Vaughan, L.R.C.P. Lond., Streatham-park.
Norton, Henry Harvey, Beddenden, Kent.
Smith, Percival, L.S.A., Harley-street.

Admitted on the 27th ult.:—

Carey, Basil de Beauvoir, L.S.A., Guernsey.
Cosens, Wm. Burrough, L.R.C.P. Lond., The Vicarage, Dudley.
Cox, W. J. Roalfe, L.R.C.P. Lond., The Hermitage, Streatham.
Davey, Thomas George, L.S.A., Helsham, Cornwall.
England, George Fuller Ashbridge, L.S.A., Winchester, Hants.
Gilpin, William John, L.S.A., The Grove, Bedford.
Going, Joseph Andrew, L.S.A., Wanstead.
Hawkins, Herbert Pennell, L.S.A., Vincent-square, Westminster.
Iredale, Thomas, L.R.C.P. Lond., Leeds.
Lewis, John Nicholls, L.S.A., Primrose Cottage, Swansea.
Macnab, Allan James, L.R.C.P. Lond., Philbeach-gardens.
Oldham, Montague Williams, L.S.A., Southam, Warwickshire.
Ord, George William, L.R.C.P. Lond., Streatham-hill.
Phillips, Thomas, L.S.A., Newcastle Emlyn South Wales.
Pridham, William Frederick, L.S.A., Cromwell-crescent.
Quiller, Chas. Turner, L.R.C.P. Lond., Orlando-road, Clapham-common.
Rusher, John Golby, L.S.A., Finsbury-park.
Sansom, Harry Arthur, L.R.C.P. Lond., Harley-street.
Sen, Chandi Charan, L.R.C.P. Lond., Hanwell.
Walker, Alfred William Hensley, L.R.C.P. Lond., Hampden Club.
Wilson, A. Harvey, M.D. Dartmouth, South Boston, Mass., U.S.A.
Wreford, John, L.R.C.P. Lond., Clapham-road.

Admitted on the 28th ult.:—

Hill, Charles Marshall, L.R.C.P. Lond., Halifax.
Oliver, Charles Pye, L.S.A., Maidstone.
Ormerod, Edward Booth, L.S.A., Robe Town, South Australia.
Peeke, Harold Samuel, L.R.C.P. Lond., Kensington.
Powell, Edgar Elkins, L.R.C.P. Lond., Guildford.
Wilde, Leonard, L.S.A., Watford.

COLLEGE LECTURES.—Professor Francis Warner, M.D., F.R.C.S., will deliver a course of three lectures on "The Anatomy of Movement." The lectures will be delivered on Monday, Wednesday, and Friday, the 7th, 9th, and 11th inst., at 4 o'clock precisely each day.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 27th ult, the degree of M.B. was conferred on the following gentlemen:—

George Gavin Morrice, Trinity; William Percival Gore Graham, Gonville and Caius.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise on the 27th ult.:—

Gilpin, William John, The Grove, Bedford.
Hawkins, Herbert Pennell, Vincent-square, Westminster.
Lewis, John Nicholls, Granby-street, Hampstead-road.
Ormerod, Edward Booth, Lawn-terrace, Blackheath.
Prowse, John Skardon, Earl-street, Cambridge.

THE Hospital Sunday collection was held at Rotherham on the 30th ult.

THE eighth annual dinner of the Leeds medical students (past and present) was held on the 28th ult.

THE recent Hospital Sunday Collection at Reading realised £237.

THE Queen has been pleased to sanction the Hull Children's Hospital being called in future "The Victoria Hospital for Sick Children, Hull."

THE seventy-first annual general meeting of the supporters of the Weymouth Royal Hospital was held on the 20th inst.

THE financial report of the Tiverton Infirmary and Dispensary, which was read at the annual meeting on the 26th ult, was unsatisfactory.

AT the annual meeting of the governors of and subscribers to the Hertford General Infirmary, on the 20th ult., an unsatisfactory financial report was presented. The deficit amounted to £1118.

BILLS to amend and consolidate the Acts relating to lunatics have been laid on the table of the House of Peers by the Lord Chancellor, who proposes to move the second reading of the measures on Monday next.

AT a large meeting of the inhabitants of Dartmouth on the 18th ult, it was decided to erect a cottage hospital, with a dispensary, for the town and surrounding district, in celebration of the Jubilee.

RABIES.—An Order in Council, entitled "The Rabies Order of 1887," has been officially published. It lays down certain fresh regulations in regard to animals found to be affected with rabies, more especially dogs. The order, which will take effect from and after the 28th inst., will not interfere with the operation of the Dogs Act, 1871.

ROYAL MATERNITY CHARITY.—The annual meeting of the governors of this charity was held on the 25th ult., Sir John Lubbock, M.P., presiding. The report of the managing committee, which was read, showed that 4000 poor married women had been administered to during the past year. The expenditure amounted to £3371, and the income to £3740.

SHEFFIELD HOSPITAL SUNDAY COLLECTION.—A total of £2278 has already been received as the result of the appeals made in the churches and chapels of Sheffield on the 30th ult., in aid of the local medical charities. This is an increase of £156 over the amount received last year, and there are several sums yet to come in, which it is estimated will bring the total amount received this year to about £2300.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—At the next quarterly meeting to be held at Bethlem Hospital, St. George's-road, on Feb. 23rd, it is proposed to discuss the question "Whether there is ever sufficient reason for the use of strong clothing and side-arm dresses." Dr. Percy Smith will read a communication on "The results of an Epidemic of Typhoid Fever in the Insane."

LONDON HOSPITAL SATURDAY FUND.—Seventy-five metropolitan hospitals and fifty-seven dispensaries have participated in the awards of the above fund. The following are among the chief items:—Charing-cross, £162; King's College, £175; London, £586; Middlesex, £276; St. George's £267; St. Mary's, £224; University College, £204; Westminster, £208; Royal Free, 168; Seamen's, £111; West London, £131; Brompton Consumption, £589; North London, £176; Victoria-park, £288; Royal National, £108; Ormond-street Children's, £120; Temperance, £73; City-road, £96; Cancer, £115; German, £115.

THE annual collections in aid of the local medical charities were held in Nottingham on the 29th and 30th ult.

THE fifty-fourth annual meeting of the subscribers to the Sussex Eye Hospital was held at Brighton on the 27th ult. The receipts exceeded those of previous years, but additional subscriptions were appealed for, the numbers of patients being year by year on the increase.

WINDSOR ROYAL DISPENSARY AND INFIRMARY.—The report which was read on the 27th ult. at the annual meeting of the supporters of this institution showed that during 1886 the total revenue amounted to £1939 and the expenditure to £2036. The number of in-patients was 269, as against 176 in 1885, and of out-patients 3661, as against 4123.

THE annual general meeting of the National Association for Supplying Female Medical Aid to the Women of India was held on the 26th ult., under the presidency of the Viceroy, who congratulated the Association upon the firm hold it had obtained upon the affections and conviction of the people of India. The funds amount to over three and a half lakhs of rupees, but an appeal was made for further assistance.

SANITARY REGISTRATION OF BUILDINGS BILL.—A special meeting of the Council of the Sanitary Assurance Association was held on Monday last, for the final revision of the above Bill before presentation to the House of Commons, Sir Joseph Fayrer, K.C.S.I., F.R.S., in the chair. The new measure was adopted by the Council, and in the absence of Dr. Farquharson, M.P., from England, it was decided to ask Mr. C. C. Lacaita, M.P., to take charge of the Bill in the House of Commons.

IN his annual report to the Commissioners of Sewers of the City of London, Dr. Saunders reports that during 1886 he has analysed 61 samples of milk, 22 of whisky, 9 of gin, 16 of mustard, 27 of drugs, 10 of disinfectants, 6 of water, 4 of butter and butterine, 2 of pepper, 2 of mineral waters, 2 of oil, 6 of pickles, 12 of preserved herrings, 3 of bread, and 6 of arrowroot. Dr. Saunders states that the apathy of the public in the working of the Food and Drugs Acts, which he has previously commented on, still continues.

DORSET COUNTY HOSPITAL.—The annual meeting of the subscribers to this institution was held on the 27th ult., when the report, which was read and adopted, showed that the total receipts were £2454, and the expenditure £2387. Charges of extravagance in the salaries of the paid staff, and in the amount spent on surgical instruments and lint, were made by several subscribers; and it was eventually resolved that all future reports should be published at least one week before the meeting, in order that the various items may be carefully considered before their adoption by the subscribers.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAMS, JAMES, M.D.Aber., M.R.C.S., has been re-elected Surgeon to the Ashburton and Buckfastleigh Cottage Hospital.

BARRON, HUNTER, M.B., C.M., M.R.C.S., L.R.C.P., has been appointed Medical Officer to Christ's College, Finchley, N., vice W. Phelps, M.R.C.S., resigned; also Medical Officer to the Convent of the Good Shepherd, Finchley, N., vice W. Phelps, M.R.C.S., resigned.

BICKERTON, T. H., L.R.C.P.Ed., M.R.C.S., has been appointed Oculist to the Liverpool Royal Infirmary.

BOYS, A. H., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Second District of the St. Alban's Union.

CESAR, J., L.R.C.P.Ed., L.R.C.S., has been appointed by the Home Office Certifying Factory Surgeon for Rimly, Sheppey.

HUTCHINSON, A. C., M.B., C.M. Aber., has been appointed Honorary Medical Officer to the Brighton, Hove, and Preston Dispensary.

KEMBLE, ARTHUR C., L.R.C.P., L.R.C.S., L.M.Ed., has been appointed Surgeon to the Roman Gravels and Wotherton Lead Mines; also Medical Officer and Public Vaccinator to the Worthen District of the Forden Union, Shropshire, vice T. L. Macartney, L.R.C.P., L.R.C.S., L.M.Edin., resigned.

POLLARD, CHARLES, M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer to the St. George's Union Infirmary, Fulham-road.

PRITCHETT, HENRY, M.R.C.S., L.S.A., has been appointed Medical Officer for the Workhouse and the Second District of the Bedminster Union.

ROBERTS, JAS. BLACK, M.B., C.M.Edin., has been appointed Medical Examiner to the Nottingham School Board.

STARK, ARTHUR C., M.B., C.M.Ed., has been appointed Medical Officer for the Third District of the Romsey Union.

STEPHENSON, WILLIAM, M.R.C.S., L.S.A., has been appointed Honorary Surgeon to the Beverley Cottage Hospital.

STUART, CHAS., M.B., C.M.Ed., has been appointed Medical Officer for the Great Ayton District of the Stokesley Union.

UNSDELL, HENRY, M.R.C.S., L.S.A., has been re-elected Surgeon to the Ashburton and Buckfastleigh Cottage Hospital.

VOGAN, JAMES N., L.R.C.P.Lond., F.R.C.S.E., has been appointed Medical Officer for the St. Matthew's District of the Ipswich Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

DONCASTER GENERAL INFIRMARY.—House Surgeon. Salary £100 per annum, with board and residence in the house.

ROYAL ALBERT HOSPITAL, Devonport.—Honorary Surgeon.

TUNBRIDGE WELLS GENERAL HOSPITAL.—House-Surgeon and Secretary. Salary £100 per annum, together with board, furnished apartments in the hospital, gas, firing, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

BELL.—On Dec. 30th, at Mecan Meer, Punjab, the wife of Surgeon W. Howard Bell, Medical Staff, of a daughter.

JOBSON.—On the 26th ult., at Keillour House, Perthshire, the wife of Brigade-Surgeon Jobson, M.D., of a son.

MURPHY.—On the 25th ult., the wife of Harry A. Murphy, L.R.C.S., L.R.C.P.Ed., of Bolton, Lancashire, of a daughter.

SYRÉE.—On the 23rd ult., the wife of Anton Hugh Syrée, M.R.C.S., of Northallerton, Yorkshire, of a son.

TAUNTON.—On the 25th ult., at West Norwood, S.E., the wife of W. M. Taunton, M.R.C.P.Ed., M.R.C.S., of a daughter.

WOOLDRIDGE.—On the 29th ult., at Priory-villas, Barnes, S.W., the wife of Leonard C. Wooldridge, M.D., D.Sc., of a daughter.

MARRIAGES.

BRANFOOT—CARTER.—On Dec. 18th, at St. George's Cathedral, Madras, Arthur Mudge Branfoot, Surgeon-Major, I.M.D., to Lucy Innes, second daughter of H. R. P. Carter, Esq., of Madras.

BROWNE—WHITAKER.—On the 27th ult., at the Parish Church, Leytonstone, Essex, William Browne, L.R.C.S., L.R.C.P.Ed., of Stirling, to Agnes Mary, fourth daughter of the late Jas. Whitaker, of Bimfield, Huddersfield.

CHEYNE—SERVANTÉ.—On the 29th ult., at Christ Church, Gipsy-hill, by the Rev. R. Allen, Vicar, assisted by the Rev. C. W. Servanté, brother of the bride, W. Watson Cheyne, M.B., F.R.C.S., of 59, Welbeck-street, W., to Mary [illegible], only daughter of the late Rev. Wm. Servanté.

IRVINE—HOGG.—On the 27th ult., at Hilton, near Perth, R. W. Irvine, M.B., C.M.Ed., of Pitlochry, to Minnie, youngest daughter of the late James Hogg, of Lowvalleyfield, Culross.

JESSOP—ROGERS.—On the 27th ult., at St. Pancras Parish Church, Edward Jessop, M.R.C.S., L.R.C.P., of Retford, to Ada, youngest daughter of Thomas Arnold Rogers, of Endsleigh-street, Tavistock-square.

POLAND—DENHAM.—On the 31st ult., at St. George's Church, Edinburgh, by the Rev. Archibald Scott, D.D., Minister of the Parish, John Poland, F.R.C.S., of St. Thomas's-street, S.E., third son of R. H. Poland, Esq., Eliot Vale, Blackheath, to Mary Roberts, youngest daughter of James Glover Denham, Esq., of Castle-terrace, Edinburgh.

POTTER—DU BOIS.—On the 29th ult., at St. Mary's, Bryanston-square, by the Rev. C. H. Bowden, M.A., assisted by the Hon. Rev. Canon Leigh, Henry Percy Potter, F.R.C.S.Eng., Kensington Infirmary, W., to Annie Blanche, third daughter of the late Douglas Du Bois, of Thurloe-square.

DEATHS.

ALEXANDER.—On the 27th ult., at Trinity-square, S.E., on his 67th birthday, Charles Linton Alexander, F.R.C.S., L.S.A.

DAUBENY.—On the 26th ult., at San Remo, Italy, Henry Daubeny, M.D., in the 67th year of his age.

LISTON.—On the 28th ult., at her residence, 10, Glengyle-terrace, Edinburgh, Christina, widow of Robert Liston, F.R.S., F.R.C.S., &c., in her 86th year.

MASSEY.—On the 29th ult., at Greek-street, Stockport, Thomas Massey, M.R.C.S., aged 66.

MYRTLE.—On the 2nd inst., at 348, Oxford-road, Manchester, Andrew Scott Myrtle, jun., M.D., aged 24.

PROSSER.—On the 30th ult., at Bromsgrove, Worcestershire, Roger Prosser, L.R.C.P.Ed., M.R.C.S., aged 51.

RAWES.—On the 28th ult., at Bath, William Wilson Rawes, Deputy Inspector-General of Hospitals, Madras Army, in his 71st year.

STARTIN.—On the 26th ult., at Surbiton-hill, the wife of James Startin, of 17, Sackville-street, Piccadilly, aged 37.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, February 7.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL INSTITUTION OF GREAT BRITAIN.—5 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Casual communications by Messrs. A. S. Underwood, E. G. Betts, Storer Bennett, C. D. Davis, J. Ackery, W. H. Coffin, L. Matheson, C. Rollins, and Willoughby Weiss.—President's Inaugural Address.
SOCIETY OF ARTS.—8 P.M. Dr. J. L. W. Thudichum: The Diseases of Plants, with special regard to Agriculture and Forestry (Cantor Lecture).
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Lennox Browne: Excision of Half the Larynx.—Mr. Stephen Paget: Cases of Parotitis after Abdominal Operation.—Mr. Hugh Smith: Rupture of Aneurysm into Pericardial Cavity.

Tuesday, February 8.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 1.30 P.M. Skin Department, Mondays and Thursdays, 9.30 A.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Function of Respiration.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Cant: Clinical Observations on Induration in the Primary Lesion of Syphilis in Women (communicated by Mr. Holmes).—Dr. Hebb: A case of Actinomycosis Hominis (communicated by Dr. Sturges).
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Lieut.-Col. Sir Charles Wilson: Notes on the Tribes of the Nile Valley North of Khartoum.

Wednesday, February 9.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. John Moir: Statistics of Small-pox Cases in the West Ham Hospitals during the Epidemic of 1884 and 1885.—Dr. John Macpherson: A Memorandum on Notices of Cholera in India before 1817.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Presidential Address by the Rev. Dr. Dallinger, F.R.S., on Recent Optical Improvements in the Microscope, and the operation of the Darwinian Law amongst the Minutest Organisms.
SOCIETY OF ARTS.—8 P.M. Mr. A. Gordon Salamon: Purity of Beer.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Mr. Bland Sutton, Dr. Fancourt Barnes, and others. Dr. Charles H. Fitzgerald: The Use and Abuse of Pessaries.

Thursday, February 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. A. W. Rücker: Molecular Forces.

Friday, February 11.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
SOCIETY OF ARTS.—8 P.M. Dr. George Watt, C.I.E.: The Economical Condition of India.
CLINICAL SOCIETY OF LONDON.—8.30 P.M. Nephro-lithotomy—discussion on papers read at the last meeting by Mr. Henry Morris, Mr. Marsh, and Mr. Bennett.—Dr. Hughlings Jackson: A case of Crural Monoplegia from Subcortical Disease.—Dr. Carrington: A case of Rheumatic Hyperpyrexia. Living Specimens:—Dr. A. H. Robinson: A case of Charcot's Joint Disease.
ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. Edward B. Poulton: Gilded Chrysalides.

Saturday, February 12.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Carl Armbruster: Modern Composers of Classical Song—Rubenstein, Raff, and Grieg (with Vocal Illustrations).

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, February 3rd, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Jan. 28	30·39	W.	43	42	...	51	37	...	Overcast
,, 29	30·51	W.	50	48	...	50	42	...	Overcast
,, 30	30·35	S.W.	40	39	...	47	37	...	Cloudy
,, 31	30·14	S.W.	47	46	...	53	39	...	Overcast
Feb. 1	29·82	S.W.	50	48	...	52	44	...	Cloudy
,, 2	30·10	S.W.	37	35	...	50	33	·10	Cloudy
,, 3	30·08	W.	50	47	...	52	36	·09	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

AN ITALIAN DAILY MEDICAL JOURNAL.

AN Italian correspondent informs us, with reference to a letter appearing in our issue of Jan. 1st, that a daily medical journal is published in Naples, called *La Riforma Medica*, which enjoys a considerable circulation. The editor has recently issued a notice that prizes consisting of gold medals will be awarded to the students who shall contribute the best original articles on various branches of medical science. The awards are to be adjudicated by a commission of professors of the different universities.

Med. Staff.—Our correspondent has completely misapprehended our views. We believe also that his opinions on the subject of rewards are not those held by a large majority of the officers.

Mr. Brinsley is referred to a general notice at the head of this column.

TO ALL WHOM IT MAY CONCERN.

To the Editors of THE LANCET.

SIRS,—As an advertiser and answerer of advertisements in your journal I will ask you to be so good as to give a place to the few remarks I make on the above subject.

I have answered several advertisements in your journal, in each case sending an enclosed stamp for reply, along with a copy of my testimonials. I have asked the persons to whom I wrote to be so good as to return my testimonials and favour me with an early reply. I think if persons who insert any advertisement were for a moment to seriously consider that such an act entails a certain amount of responsibility, and to look on the matter as a business transaction, they would at once see that it is neither business-like nor courteous to leave a reply unanswered, especially when a stamp is enclosed for a reply, and a request made to have one's testimonials returned. Those who advertise should also bear in mind that they are not the only persons who do so; and that the person who answers their announcements may very probably be in communication with others, who also desire to come to a settlement. When, therefore, an early reply is asked for it ought as far as possible to be given, especially when it is particularly requested, and a stamp enclosed to defray postage. Surely it would be no hardship—and very little trouble in such cases—to return testimonials, and enclose a slip of paper with "declined with thanks" when one is not disposed to have any more to do in the matter. It is alike to the interest of the advertiser and those who reply to adopt such a course. I feel sure the subject only requires to be mentioned to draw the attention of your *clientèle* to the matter.

I am, Sirs, yours truly,

Jan. 20th, 1887. ADVERTISER.

FURNEAUX JORDAN TESTIMONIAL FUND.

SECOND LIST.

Coleman, T. M., Esq.	...	£5	5	0	Johnston, A. K., Esq.	...	£1	1	0
Browne, H. Langley, Esq.		3	3	0	Haycraft, Prof. B.	...	1	1	0
Foster, R. H., Esq.	...	3	3	0	Martin, J., Esq.	...	1	1	0
Johnson, G. J., Esq.	...	3	3	0	Moore, C. W. B., Esq.	...	1	1	0
Pemberton, Oliver, J.P., F.R.C.S.	...	3	3	0	Neal, J. Breward, Esq.	...	1	1	0
Pemberton, C. L. H., Esq.		3	3	0	Price, E. Esq.	...	1	1	0
Bradbury, J. P., Esq.	...	2	2	0	Robinson, Dr. Edmund	...	1	1	0
Lewis, Christopher, M.D.		2	2	0	Saundby, Dr. Robert	...	1	1	0
Willington, Dr. Wm.	...	2	2	0	Simon, Dr. Robert	...	1	1	0
Owen, D. C. Lloyd, F.R.C.S.I.	...	2	2	0	Standish, Thomas, Esq.	...	1	1	0
Wilson, Wright, Esq.	...	2	2	0	Underhill, Frank, Esq.	...	1	1	0
Bond, Dr. Francis	...	2	2	0	Van Vestrant, Esq.	...	1	1	0
Ellis, H. D'Arcy, Esq.	...	1	1	0	Windle, Prof. B. C. A.	...	1	1	0
Evans, A. P., Esq.	...	1	1	0	Whitehouse, J., F.R.C.S.	...	1	1	0
Foxwell, Dr. A.	...	1	1	0	Whitehouse, John, Esq.	...	1	1	0
Gaunt, J. P., Esq.	...	1	1	0	Wood, Horatio, Esq.	...	1	1	0
Gettings, John S., Esq.	...	1	1	0	Weston, S. L. Darby, Esq.		1	1	0
Gibb, E., Esq.	...	1	1	0	Young, T. B., Esq.	...	1	1	0
Grinling, J. C., Esq.	...	1	1	0	Fowler, Walter, F.R.C.S.		0	10	6
Harmar, J. R., Esq.	...	1	1	0	Lawrence, S. C., Esq.	...	0	10	6
Harmar, J., Esq.	...	1	1	0	Westwood, H. O., Esq.	...	0	10	6
					Sunderland, Wm., Esq.	...	0	10	6

Subscriptions may be forwarded to the treasurer, Mr. T. H. Bartleet, 27, Newhall-street, Birmingham, or to the secretaries, Messrs. Bennett May, 81, Edmund-street, and Jordan Lloyd, 22, Broad-street.

Mr. J. Holloway.—Our correspondent does not supply all the material which would enable a precise opinion to be given. When cold air is heated it requires increased moisture to prevent it from becoming dry and irritating. The amount of moisture required must necessarily depend upon the amount of increase of temperature resulting from the heating. The proper amount of moisture in air for breathing should be from 65 to 75 per cent. of saturation, and the absolute amount which should be added to each cubic foot of air thus warmed can be calculated from the following table, which gives in grains troy the moisture contained in each cubic foot of air when saturated at different degrees of temperature:—

Degrees Fahr.	Grains of vapour in cubic foot.	Degrees Fahr.	Grains of vapour in cubic foot.
10	·8	60	6·0
20	1·3	70	8·0
30	2·0	80	10·0
40	2·9	90	15·0
50	4·0	100	19·0

A Smoker.—We may perhaps take an early opportunity of going fully into the subject.

Mr. W. H. Bull.—Miss Wardell's Institution at Brockley-hill, Stanmore.

"OBSTINATE CONSTIPATION IN AN INFANT."

To the Editors of THE LANCET.

SIRS,—If your correspondent, "O. P. Q.," will read Dr. Cheadle's lecture on the Pathology and Treatment of Chronic Constipation in Children, contained in THE LANCET of Dec. 4th (pp. 1063–1064) and 11th (pp. 1116–1118), 1886, he may find some hints for treatment that may be useful. I have acted as locum tenens for a doctor who used to treat constipation in infants, generally with success, with a mixture as follows:—R. Res. podophyllin, gr. i.; sp. rect., ʒi.; syrup. aurant., ʒii.; aquæ ad ℥iss. One teaspoonful to be taken every night. I saw a child of six years old that received much benefit from taking two-minim doses of tincture of nux vomica in water daily, as recommended by Dr. Ringer. Dr. Goodhart, in his Manual on Diseases of Children, first edition, p. 41, draws attention to the association of small fissures about the anus with obstinate constipation, and recommends "the lower inch of the bowel and anus to be well greased with an ointment composed of equal parts of lead, zinc, and mercurial ointments, or the fissure may be dusted with equal parts of calomel and oxide of zinc."

I am, Sirs, yours faithfully,

Jan. 29th, 1887. W. F. F.

Mr. George Pycroft (Kenton).—We certainly cannot commend the practice referred to. If unwelcome, the book might be returned.

LATERAL CURVATURE.

To the Editors of THE LANCET.

SIRS,—A patient of mine, a girl aged fourteen years, is suffering from lateral curvature of the spine. The deformity is not very much at present—in fact, it was only about a month ago that her parents first noticed anything the matter. There is, however, a distinct bulging of the ribs, with projection of the lower end of the scapula on one side. Could you kindly inform me of any form of strap or other apparatus which would be of use in such a case? I am, Sirs, yours faithfully,

Jan. 26th, 1887. GRADUATE.

*** We would not advise any strap or other appliance of the kind, but regular and proper exercise of the spinal muscles, together with the correction of bad habits in standing and sitting, and general tonic treatment.—ED. L.

MEDICAL APPOINTMENTS IN THE COLONIES.

MR. J. GOODRIDGE ANDERSON writes:—"It will be very necessary for those who think of taking appointments in the colonies to be quite sure of what they are going to before they go to it and find themselves in a strange country, among strange people, under circumstances very different from what they had been led to expect, and without the means of getting home again. I see in the table published in your last issue that the salaries in the Windward Islands are stated to range from £200 to £400. This is not correct. The salaries in Tobago are £100 a year. They were £200; but some year or so back, money being scarce, and it being discovered that the Act under which the medical officers were appointed set forth that they should be paid salaries not exceeding £200 a year, it needed only a stroke of the governor's pen to make those salaries £100 a year. I need hardly say that the stroke was made. I know little, beyond hearsay, of the medical services of the other West Indian colonies; but they are mostly, if not all, Crown colonies, in which the Crown—i.e., the governor for the time being—is paramount. In the larger of these colonies the salaries offer a certain compensation for what the holders of medical appointments have to put up with in connexion with them; in the smaller colonies there is no compensation whatever, and they should be avoided by every man with even the smallest modicum of self-respect."

G. H. F.—The question is a difficult one to discuss, though many attempts at its elucidation have been made.

Doubtful—No; there are many reasons why the question should be decided in the negative.

M.B.—The L.S.A. cannot at present be counted as a double qualification.

Visitor.—Mr. L. Bruck, 35, Castlereagh-street, Sydney.

THE GENERAL MEDICAL COUNCIL AND UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—Can you lend your powerful aid in behalf of a body of men who, through the proposed action of the General Medical Council, are about to become the victims of a, to them, sweeping and cruel law abolishing their vocation? Are scores of hard-working and valuable men to their employers to be thrown on the world, many of them married and with families depending on them; some, if not the greater number, too old to embark in any other walk of life; few, alas! with the means? If it is made illegal for a medical man to employ an unqualified assistant, although many general practitioners prefer to do so, and these men are deprived of their livelihood with their wives and families, what is there before them? The workhouse? Are we all to be ruined by the profession many of us have served so long and faithfully? Many of us are working our way slowly into the legitimate ranks of the profession, perishing ourselves, depriving ourselves of small luxuries, saving what we can of our not too liberal salaries, so that we can pay for lectures and hospital, and still maintain the appearance of gentlemen. Others, who have unfortunately married and have families, have no such hope, but manage to live decently and respectably. Some of the very men who are now our most bitter enemies have been unqualified assistants themselves. They used the same stepping-stones; but now they have arrived safely on the other bank, they would kick away the stones, so that no one else may cross, except by the new bridge. Is there no way by which, at all events, the men who are now holding the unenviable position of unqualified assistants may be protected? Could not these men, as has been suggested by a writer in your columns, be allowed to register as assistants, and no fresh admissions be allowed after a certain date, confining them to holding appointments as general assistants, not allowing them to practise "under cover," and striking them off the Register if found doing so. The race would soon die out. Many in course of time would qualify, and the others would gradually disappear. Such an act was allowed in 1815—the same almost—by the pharmaceutical and dental professions, and last year by the Canadian authorities. These men are to be registered as medical practitioners on passing a practical examination before three medical men and payment of a fee. If you would lend your powerful voice in the settlement of this, to many men, vital question, their deep gratitude would be due to you. It has been suggested that a representative meeting of *bond-fide* unqualified assistants be held in London, and resolutions forwarded to the General Medical Council. This would, I think, be a wise proceeding.

Entreating your advocacy for a deserving body of men,

I am, Sirs, yours faithfully,

Jan. 18th, 1887. UNQUALIFIED ASSISTANT.

MEDICAL NEIGHBOURLINESS.

T. B. B.—When a medical man is called upon in an emergency to see the patient of a medical neighbour who chances to be out of the way, it is his duty to act for his neighbour, and to transfer the case to the ordinary attendant. Every medical man occasionally needs neighbourly kindness of this sort, and there is something wrong in any neighbourhood in which it cannot be relied on.

Dr. Blackmore (Portsmouth).—The paper has been received.

THE UNIVERSITY OF BERLIN.

THE number of students at the University of Berlin increases yearly. It is stated that during this winter more students have matriculated than in any term since the foundation of the University in 1810. In the theological, medical, law, and philosophical faculties there are 5357 regularly matriculated students, and, adding the other schools which are also parts of the University, the number rises to the aggregate of 6830. Every country of Europe, except a few minor Turkish provinces, is represented, and also are Asia, Africa, Australia, and America. The United States is represented by 149 students, Russia by 96, Switzerland by 80, Great Britain by 18, Japan by 21, and Turkey by 7.

Mr. Thos. Edwards.—If such diseases as those mentioned were cured by medical measures, the power of legal recovery would be good.

Mr. D. Jones (Bicester).—The West-end Hospital, Welbeck-street, would probably receive the case.

Mr. H. E. Fuesy.—We do not copy letters from the pages of our contemporaries.

M. R. C. P.—The proposition appears to us to be impracticable.

THE CLIMATE OF THE SOUTH-WEST OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 29th you have an interesting reference to the blossoming of the primrose in the open air during the present month, and you interpret the true value which flowers furnish of the meteorological and geological conditions in which they have been placed. It is a subject in which so many of your readers are interested, that I trust you will find room to record the fact that at the present date the subjoined plants are in blossom in the sheltered valleys of this district. In addition to the veronica, in variety, there are the primrose, violet, snowdrop, and the following herbaceous plants and shrubs now in bloom—viz., Escallonia macrantha, Gentiana verna, Genista fragrans, Coronilla iberica, Brica codonodes, Anemone fulgens, Primula purpurea, Godetia Albemarle, Cheiranthus cheiri, Berberis Darwinii, Rhododendron dauricum, the old "monthly" rose, and red carnation.

I am, Sirs, your faithful servant,

EDWYN SLADE-KING,
Ilfracombe, Jan. 29th, 1887. Medical Officer of Health.

SCIENCE IN THE NURSERY.

To the Editors of THE LANCET.

SIRS,—I learn from the *St. James's Budget* that an incubating experiment is now proceeding at Glasgow upon three children who made their appearance in the world rather earlier than was good for them. What a grand opportunity it is for testing General Pleasanton's (of Philadelphia) plan, and of the alleged efficacy of the mazarine blue glass being inserted alternately with the usual plain white in the nursery windows of the olive branches, as explained in his very interesting little book published by Messrs. Trübner and Co., Ludgate-hill.

I am, Sirs, yours faithfully,

Saltburn-by-the-Sea, Jan. 26th, 1887. H. G. J. DE S.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—May I venture to appeal through your columns to the generosity of our profession on behalf of the aged widow (83) of a surgeon, long since dead. She is in urgent need of assistance to enable her to pay debts contracted during a long illness. The smallest sum will be thankfully received and acknowledged by

Yours faithfully,

THOMAS BROOKES, M.R.C.S., L.S.A.
Whitchurch, Tavistock, Devon, Jan. 27th, 1887.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Bryant, London; Dr. Mapother, London; Mr. S. Snell, Sheffield; Mr. Lawson Tait, Birmingham; Mr. Bennett May, Birmingham; Dr. Sedgwick Saunders; Dr. Fothergill, London; Dr. Linde, Ross; Mr. Bull, Stony Stratford; Mr. C. J. Bond, Leicester; Mr. Upton, London; Sir John Lubbock, Beckenham; Dr. F. A. A. Smith, Cheltenham; Mr. Mark Judge, London; Mr. Blake, Dublin; Mr. Lankester, London; Mr. L. Humphry, Cambridge; Mr. Whitsed, Hurstpierpoint; Mr. Frank Smith; Dr. Haslam, Birmingham; Dr. Hawkes, Northampton; Mr. Brooks, Whitchurch; Dr. Dunlop, Jersey; Messrs. Boulton and Paul, Norwich; Dr. Hurry, Reading; Dr. Dudgeon, London; Dr. Joy Jeffries, Boston, U.S.A.; Mr. K. Benham, London; Messrs. Blake and Co., Leeds; Dr. Sinclair, Dundee; Dr. Rosenau, London; Mr. H. B. Dow, London; Mr. W. T. Kyle, London; Mr. Curtis, Liverpool; Dr. Davies, Denbigh; Mr. Reid, Canterbury; Messrs. Shanks and Co., London; Mr. Gibson, Bromley; Mr. Kershaw, London; Mr. Bland Sutton, London; Mr. Spurgin, Maryport; Mr. Glendinning; Mr. W. Weiss, London; Dr. Wahltuch, Manchester; Dr. Anderson, Middlethorpe; Mr. Welpton, Ravensthorpe; Mr. H. V. Knaggs, London; Messrs. Thorn, London; Dr. J. Rutherford, Dumfries; Dr. Carrick Murray; Dr. J. H. Clarke, London; Mr. Monks, Wigan; Mr. Laing, Blyth; Mr. C. J. Symonds, London; Dr. Gossett, Canterbury, New Zealand; Mr. Barff, London; Mr. Allen, Chicago; Messrs. Lee and Martin, Birmingham; Dr. Dawson, Southbourn-on-Sea; Dr. Main, East Ilsley; Mr. K. Thornton, London; Dr. F. Warner, London; Mr. E. J. Kitts, London; Mr. C. D. Green, London; Dr. Steel, Abergavenny; Messrs. Waltham Bros., Stockwell; Dr. Crooke, Portsmouth; Mr. J. Anderson, London; Mr. Green, London; Mr. Fuge, Taunton; Mr. W. Jones; Miss Gleitzmann, Clifton; Mr. Gurner, London; Dr. Langley, London; Messrs. Street and Sons, Guildford; Messrs. Macmillan and Co., London; Messrs. Read and Donald, Perth; Messrs. Whitfield and Co., Birmingham; Mr. Calderwood, Battersea; Messrs. Battle and Co., Paris; Mrs. Adams, Hollington; Mr. Bliott, Carlisle; Mr. T. Cooke, London; Messrs. Lamb and Co., Castleford; Messrs. Bates and Co., London; T. B. B.; W. F. F.; Med. Staff; M.R.C.P.; An Ealing Resident; Viator; L.R.C.P. Lond., M.R.C.S.; Pathologist; M.D.; A Smoker; L.R.C.P. & S. Ed.; Philalethes.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Juler, London; Mr. Guest, Darlington; Mr. Turner, London; Mr. Godfrey, Northampton; Dr. Cockrane, Broadford; Mr. Hutchinson, Nottinghill; Mr. Wood, Kington; Mr. Mason, Glasgow; Messrs. Smith and Son, Liverpool; Mr. Hanley, Ogiobo, Africa; Mr. Sutherland, West Reinton; Mr. Taylor, Windermere; Mr. Startin, Surbiton; Mr. Ellis, Westminster; Mr. Farrington, Bradford-on-Avon; Messrs. Sutton and Co., Norwich; Dr. Patterson, Butterknowle; Messrs. Burgoyne and Co., London; Dr. Barjee, India; Mr. Foxwell, Coleford; Mr. Butt, Bridlington; Mr. Brown, Kensington; Mr. Wilkinson, Scarboro'; Mrs. Carroll, Bromyard; Mr. Alford, Crewkerne; Mrs. Armstrong, Ryde; Mr. Newman, Glasgow; Mr. Rideal, London; Messrs. Isaacs and Co., London; Mr. Crassweller, Highbury; Messrs. Fletcher and Co., Manchester; Mr. Benton, London; Dr. Eberle, Thirsk; Mr. Petre, Norwich; Mr. Bedford, London; Miss Minks, Chelsea; Mr. Jenkins, Worcester; Mr. Kemp, Castleford; Mr. Cohen, Torquay; Dr. Bremner, North Woolwich; Mr. Hornibrook, London; Matron, Bedford; J. C., Moreton-in-Marsh; Loveland, Castleford; Medicus, Brighton; H. W., Hammersmith; Zeta; Secretary, Bristol; Physician; S. W., West Malling; Orlando; Bamb, York; E. B., London; Gamma, Sittingbourne; Alpha, Reading; Doctor, London; Alpha; Surgeon, Kurtin Lindsey; W. T. W.; C. J. B.; Medicus, Banbury; Scott; Matron, Grimsby; G. P., Newport; N. W.; C. S., Rotherham; D. J. L., Brighton; M.D., Swanage; Secretary, Birmingham.

Evesham Journal, West Cumberland Times, Yeovil Telegram, South Wales Daily News, Western Morning News, Lincoln Gazette, Scottish Leader, Standard, Scotsman, Hand and Heart, &c., have been received.

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